A

PRACTICAL TREATISE

ON

ORGANIC DISEASES OF THE UTERUS:

BEING

The Prize Essay

TO WHICH

THE MEDICAL SOCIETY OF LONDON AWARDED THE FOTHERGILLIAN GOLD MEDAL FOR 1843.

BY

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"Non quo sed quomodo."

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TO

SIR JOHN WEBB, K.C.H.

DIRECTOR-GENERAL OF THE ORDNANCE MEDICAL DEPARTMENT,

THIS ESSAY

IS INSCRIBED,

AS A TRIBUTE OF GRATITUDE AND FRIENDSHIP,

BY

THE AUTHOR.

PREFACE.

The Council of the Medical Society of London having selected as the subject of the Fothergillian Essay for 1843 "The Symptoms and Treatment of Organic Diseases of the Uterus," I was induced to write the following Treatise, which is now submitted to the public, and more especially to the members of the medical profession.

The appointment which for several years past I have had the honour of filling at Guy's Hospital has given me an opportunity of seeing no inconsiderable number of cases of uterine disease. This will not be doubted when I state that from one to two hundred out-patients, labouring under functional and organic disease of the womb, come week by week under my own personal inspection.

To the following Essay, laid before the Council of the Medical Society, and to which was awarded the Fothergillian Gold Medal, I have made some slight additions. In one or two respects it has been altered. I do not send it to the press without hesitation, or even reluctance, as well on other

accounts, as because my friend Dr. Ashwell has so recently and ably treated on the same subject; yet I may truly say, that the following pages are not published without the urgent request of many professional friends, and not a few of the former and present pupils of Guy's Hospital. I may also be permitted to add, that it has been the custom, for some years past, to submit to the public that Thesis which has been honoured with the Fothergillian Medal.

To write *elegantly* was not my object; neither would my inclination, nor my numerous professional duties, allow me to attempt this. The views which I have propounded I certainly believe to be correct: the cases I have adduced undoubtedly are so. Whatever opinions may be formed of any portion of my theories, I trust that, at all events, I may indulge the hope that my statements may be useful to students and the junior members of the profession: and to have aided these in their difficult and honourable course, will ever be to me a subject of high gratification.

JOHN C. W. LEVER.

12. Wellington Street, Southwark,
September, 1843.

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PART III.

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ERRATA.

Page 44. line 11. for "srves" read "serves."
45. line 17. for "considerale" read "considerable."
82. line 18. for "has" read "have."
132. line 7. from bottom, for "stimulating" read "simulating."

ON

THE ORGANIC DISEASES

OF

THE UTERUS.

The diseases to which the uterus is liable are well arranged in two grand divisions. The one termed "Functional," including those diseases dependent on deviation from the normal action of any part of the organization, is indicated by certain symptoms during life, but which after death are not found to be associated with any appreciable structural change. The second division, viz. Structural or Organic diseases, includes all diseases in which there is any alteration or lesion of the organ. If we take but a slight glance at the position of the uterus in the pelvis, it will be sufficient to convince us that in any increase in its size, from whatever cause such may arise, whether from congestion, tumour, &c., certain symptoms will be produced by which such increment will be marked. The bladder, being situated in front, if encroached upon, will indicate such trespass by the symptoms of vesical irritation; while any undue pressure upon the termination of the intestinal tube will be recog-

nised by alteration in the form of the fæcal evacuations, tenesmus, &c.

But before proceeding to the investigation of the general symptoms and diagnosis of structural diseases of the uterus, it may be desirable to inquire—

Firstly: What is the relative proportion of functional to organic uterine disease?

Secondly: Are married or unmarried women more liable to structural changes?

Thirdly: Does the diathesis accompanying or predisposing to organic disease impair the faculty of conception?

And Fourthly: If conception take place, does the organic disease interfere with the vitality of the offspring?

Firstly: What is the relative proportion of functional to organic disease?

To answer this question I cannot do better than state the nature of the diseases occurring in 1388 patients who have been under my care.

Of the 1388 females 905 laboured under what are termed functional diseases, and 483 under organic diseases.

Functional.

Amenorrhœa	193	Brought forward	349
with Amaurosis	1	Dysmenorrhœa	27
Epilepsy	6	Hysteria	68
Chorea	2	Irritable Uterus	19
Hemiplegia	2	Leucorrhœa	310
Chlorosis	145	Menorrhagia	125
	349	Vicarious Menstruation	7
		Total	905

Organic.

Carcinoma Uteri - -	104	Brought forward	200
Cauliflower Excrescence -	1	Hard Tumour of Uterus -	69
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Hysteritis - - - -	2	Polypus - - - -	12
	200	Total	483

To this table I append the following statement: of 1194 women who have been under my care since the above list was made, 755 laboured under functional and 439 under organic disease of the uterus.

I am enabled through the kindness of Sir John Webb, K.C.H., director-general of the Ordnance medical department at Woolwich, to append to my own observations the results of the experience of practitioners in other climates.

At Corfu, a celebrated Italian physician reports "that not more than 1 woman in 50 suffers from 'dysmenorrhœa,' and that carcinoma uteri occurs in the same proportion." He further adds that all the women he has seen labouring under this distressing malady have had syphilis in early life.

At Jamaica, 20 out of every 100 adult white females suffer from functional derangement of the uterine organs, "while 10 per cent. suffer from carcinoma, all of whom have laboured under suppressed or painful menstruation." Diseases of the uterus, whether functional or organic, are stated to be "very rare amongst the blacks."

Quebec. — Among the French Canadian women carcinoma uteri is said to occur in the proportion

of 3 in 50, and on investigation these women will be found to have previously suffered from amenorrhœa or dysmenorrhœa. The writer further remarks that "the same observations are applicable to the native Indians, particularly where they have formed colonies and settled themselves in the vicinity of large towns.

Among the British Canadians the proportion is also stated to be the same, the writer remarking "that those affected with carcinoma uteri have always suffered from painful menstruation."

In convents the occurrence of functional and organic disease is more frequent; 10 women out of 50 are said to suffer from organic lesion.

Halifax.—One woman in 40 is said to suffer from organic disease. "Those thus affected have generally suffered from scanty menstruation, the discharge often putting on a slimy appearance."

Belle Isle, Upper Canada.—The writer in several years' experience has seen but one case of organic disease, carcinoma uteri, and this woman had suffered from difficult and painful menstruation.

Montreal.—Eight women out of 50 are stated to suffer from functional derangement; 2 women in 50 suffer from organic disease. In the country the proportions appear to be about the same.

It will thus be seen that functional diseases amounted to 65·2 per cent., while organic diseases bear a proportion of 34·7 per cent.

Secondly: Are married or unmarried women more liable to structural changes?

Of 95 females affected with polypus, carcinoma, fungoid disease, and hard tumour, 89 were married and 6 were single, the married amounting to 93·68 per cent., the single to 6·3 per cent.: thus it would appear that marriage tends to favour the development of structural change. This to me is no matter of surprise, considering the part the uterus has to perform, its turgescence during copulation, its increase of structure and development during pregnancy, and the accidents to which it is liable (especially the mouth and neck) during the process of parturition.

Thirdly: Does the diathesis accompanying organic disease impair the faculty of conception?

Of the 89 married women previously referred to 8 had never conceived.

Thus the proportion of sterile women was 0·9 per cent., a very small proportion; for it is found that $\frac{1}{20}$, or 5 per cent. of married women are wholly unprolific. The child-bearing women amount to 91·09 per cent.

The results of some observations I have made in carcinoma uteri lead me to the conviction that the diathesis predisposing to or accompanying that disease does not interfere with the faculty of conception; for the average number of children consequent upon a prolific marriage is shown to be rather more than $5\frac{3}{4}$, but not amounting to 6.

Mr. Senior, in his preface to the "Foreign Communications," sent to the Poor Law Commissioners,

gives the average number of children to a marriage in various countries as follows:

America.	No. of Children to a Marriage.	Europe.	No. of Children to a Marriage.
Massachusetts	5	Sweden	$3\frac{3}{5}$—$4\frac{1}{6}$
New York	5	Russia	3—4
Carthagena, &c.	4—5	Denmark	$3\frac{27}{40}$
Columbia	4—5	Mecklenburgh	4
Miranham	5	Wurtemburg	$4\frac{3}{10}$
Hayti	3—4	North Holland	$5\frac{1}{10}$
		Belgium	$4\frac{72}{100}$
		France	$4\frac{7}{10}$
		Azores	3—4

Fourthly: If conception take place, does the organic disease interfere with the vitality of the offspring?

Eighty-one women conceived 553 times: 43 conceptions, or 7·7 per cent., terminated in abortion, and 510 children, or 92·3 per cent., were born at the full period of utero-gestation. Of these 510 children, 12 only, or 2·35 per cent., were still-born.

Dr. Puchelt, in his "Commentatio de Tumoribus in Pelvi," has collected 32 cases of carcinoma uteri complicated with labour (which will be referred to hereafter). In this treatise he states that 15 of the children were born dead. The cases in which 12 dead children were born were as follows:— 3, carcinoma uteri; 2, fungoid disease; 1, polypus; and 6, hard tumour.

In addition to those cases I have witnessed three others, all of whom were affected with encephaloid cancer, and in which the children were still-born. The cause of the death of the child appears to be entirely dependent upon the protraction of the labour

from the non-dilatability of the parts through which the children had to pass, and the consequent pressure upon the head.

METHODS OF EXAMINATION.

Before proceeding to detail the general symptoms by which organic lesions of the uterus are accompanied, it will be proper to allude to the various methods of examination which should be employed in order to ascertain the existence or non-existence of uterine disease.

The means of examination may be treated of under four heads, according to the senses employed in prosecuting them.

Thus, we have the evidences afforded by touch, vision, smell, and hearing.

I. Manual or tactile examination may be instituted in three ways:—1. externally over the abdomen; 2. per vaginam; and 3. per rectum.

1. In examining externally it is always advantageous previously to have the bladder and rectum emptied; the patient should be placed in a recumbent position, her head slightly raised, and her abdominal muscles relaxed.

The examiner should then endeavour to ascertain whether there be any tumour or swelling; if such be the case, its circumference should be traced, its connections marked, its mobility noted. He should ascertain whether it obeys the prone position of the

body, whether it inclines to the side upon which the patient lies, or whether it maintains its place whatever be her position: he should endeavour to discover whether it be firm or fluid, whether firm in some parts and fluid in others, whether it be regular or irregular on its surface.

2. Examination "per vaginam" may be instituted either in the erect or recumbent position of the patient; by the former, we are more especially able to appreciate the relaxation of the uterine ligaments (from whatever cause such may have occurred).

The recumbent position, however, is more frequently employed. The patient lying on her left side with her knees drawn up, and her head slightly inclined, having, as before, evacuated the contents of the bladder and rectum, the examiner kneels at her bedside, and anointing his fore-finger with lard passes it into the vagina: by its assistance he ascertains whether there be any dislocation of the uterus, if it be anteverted, retroverted, or prolapsed; he marks the existence or non-existence of inflammation or irritability, whether the os uteri is preternaturally firm or hard; whether there are any polypoid growths, their consistence, sensibility, place of attachment, &c.; whether the os uteri is even and smooth, or corrugated, or scabrous: he ascertains the weight and size of the uterus by raising the organ with his finger, and he endeavours to discover that the tumour (if one exist), felt by an external examination, is uterine, by placing one hand over the abdominal region, and testing whether the

impetus given to the one is communicated to the other.

3. Examination "per rectum" may also be accomplished while the patient is in the recumbent posture.

The index finger well anointed, passed into the rectum, ascertains the amount of pressure made on the bowels by the displaced or enlarged womb, the existence or non-existence of recto-vaginal fistula, the enlargement or non-enlargement of the uterus itself; and it will enable him to decide the characters and boundaries of tumours situated between the vagina and rectum, uterus and rectum, as well as those situated in the lateral and posterior part of the pelvis.

II. Visual Examination. The organs of vision afford us no small assistance in the detection and discrimination of uterine diseases; for by the eye we recognise the waxen hue of amenorrhœa or chlorosis, the shrivelled and wasted features attendant upon carcinoma, as well as the pale and flabby appearance of patients suffering from long existing hæmorrhages.

The eye, moreover, assists us in discriminating between the several secretions or discharges from the vagina, whether they be sanguinolent, watery, mucous, or purulent; it distinguishes also tumours protruding from the external parts, procidentia uteri from procidentia vesicæ or vaginæ, and both from polypus; it recognises inversio uteri, and leads us to distinguish verrucous tumours, arising

from the vestibulum from vascular growths springing from the orifice of the meatus urinarius.

But the eye of the obstetric physician is more especially exercised in the employment of the speculum vaginæ; to the consideration of which we now turn.

The speculum vaginæ is constructed in various ways: there are, however, three principal varieties; the first, or simplest, consists of a plain cylinder polished internally, with a plain handle for its introduction: its recommendations are, its simplicity and its cylindrical form, which the others do not possess; but its shape sometimes renders it difficult of introduction.

I am in the habit of using glass specula, blown for the purpose, stout, larger at one end than the other: by their assistance I can see the os uteri well, and at the same time have an opportunity of detecting any ulcerations or growths in the vaginal canal.

The next form of speculum when closed very much resembles an Italian iron, and is the easiest of all to introduce.

The instrument consists of two portions, kept closed by means of a spring opened by pressing on the extremities of the handles, and maintained as far apart as necessary by means of a screw. The facility of introduction recommends this form of instrument; but the great objection to its employment is, that, when opened, it does not form a sufficiently large cylinder, allowing the relaxed vagina

to protrude between its two divisions, thus obstructing the operator's view of the os uteri, at the same time causing great pain to the patient from the pressure exerted by these edges on the vagina itself. Another objection to the use of this speculum is that the halitus or moisture from the vagina renders the internal surface of the instrument dull, and so prevents the operator from having a perfect or correct view of the os uteri.

The next variety of the speculum I shall describe is a highly finished and expensive instrument: the cylinder is formed sometimes of two, at other times of three branches, and is protected and guarded by a plug of ebony, which may be extracted after the introduction and partial separation of the blades. The extent to which this instrument expands is regulated by screwing the handle. The same objections apply to this instrument as to the last, viz. the incompleteness of the cylinder when the branches are separated, the pain caused by the edges during the separation, and the dulness of the interior produced by the halitus or secretion. Some persons have endeavoured to remove these objections by introducing a polished cylinder within the branches after their separation; but this causes great pain to the patient, from its pressing the relaxed vagina between the cylinder and the edges of the branches. An extremely useful and well-finished instrument is now made both by Laundy and Smith of St. Thomas Street, Southwark, which consists of three blades secured by means of a spring catch. When

closed for introduction, the instrument is of an oval form like the vagina; but when introduced and extended, it forms a perfectly round cylinder, its internal surface plated and highly polished. Its extension is secured by means of a thumbscrew, which enables it to resist any pressure from without, and prevents the blades from collapsing. The introduction of the instrument is facilitated by means of an ebony conductor, which, by turning a little to either side, may be readily withdrawn after the instrument is extended by closing its handles.

The advantages of this instrument are the readiness with which it is introduced, the ease with which it is expanded, the completeness of the cylinder, the highly polished internal surface, and the little pain attending its employment.

Method of Introduction.—In the introduction of the speculum, the patient should be laid on her left side with her knees drawn up, and a finger having been introduced to ascertain the position of the os uteri, the speculum is to be passed directly backwards, and a little downwards in a line drawn from the orifice of the vulva to the point of the coccyx; it should then be passed as far up as the os uteri: sometimes the cervix uteri is inclined so far backwards that the speculum cannot show it by any movement. Various contrivances have been invented by Madame Boivin and others to bring it forward: this may generally be accomplished by means of a finger passed into the rectum, or by a change of position. When the instrument is in-

troduced, a lighted candle or taper should be applied to the external extremity of the cylinder, by the aid of which we shall distinctly see the os uteri, and be able to notice any deviation from the normal state.

By the assistance of this instrument we shall detect any change in the form of the os uteri, its adhesions, cicatrices, &c., however caused; its ulcerations, whether they be the effect of inflammation, or whether they be specific or malignant. It may enable us to detect polypus in its early stages, and to discriminate between carcinoma uteri, fœtid leucorrhœa, and early cauliflower excrescences.

By its means ecchymosis, erosions, and small miliary vesicles may be perceived, which the finger, however well educated, could not detect. The speculum is, moreover, of use to enable us to apply leeches and remedies of various kinds to the os uteri itself. It must not, however, be forgotten that there are many circumstances which prohibit the employment of a speculum, such as a hymen, membranous bands traversing the vagina, contractions of the upper part of the vagina into a funnel-like tube, vaginal tumours, deep ulcerations of the vagina, extreme irritability, &c.

III. I will now proceed to treat of the evidence afforded by the organ of smell; and if I am brief, it is not because I undervalue the assistance afforded us by this organ, but because I am unable to describe the variety of scents attendant upon the

several uterine diseases accompanied with morbid secretions.

It is necessary to have had some little experience to enable us to recognise the peculiar scents which appertain to the various diseases. Thus, having once smelt the fœtid discharge of carcinoma uteri, we easily recognise it when another patient presents herself. Again, we know that polypus uteri is sometimes attended with purulent discharge of a most offensive character, but still varying from that of carcinoma. Again, simple leucorrhœal discharges are occasionally horribly offensive; and yet I can only describe all these by the general term fœtid. Of one thing I am certain, that every secretion proceeding from the vagina, whether morbid or natural, has its peculiar and easily recognisable scent, although appreciable only by those who have had some previous experience in uterine cases.

IV. I now come to the last organ from which we can derive assistance in the investigation of organic uterine disease—that of hearing.

By means of auscultation we prove the existence or non-existence of thoracic disease in patients affected with organic changes in the uterus, and upon whom we intend to operate; so, also, we ascertain the existence or co-existence of pregnancy and tumour in abdominal enlargements.

The employment of auscultation to the detection of pregnancy appears to have occurred about the same time to M. Maior* of Geneva and Dr. Ker-

* Bibliothèque Universelle, Nov. 1818.

garadoc; but it is to the latter that we are indebted for the praiseworthy manner in which he followed out his ideas, and subjected them to the rigid test of experience.

In examining the abdomen of a patient with the stethoscope, she should be placed on her back on a couch with a sheet thrown over her. If there be pregnancy at the fourth month, we shall be able to hear what is termed the "bruit placentaire," although I am not prepared to state that there is any connection between this sound and the situation of the placenta. Some writers state they have heard it before this period; but I have never been able to detect it, although I have cautiously conducted numerous examinations. Velpeau* states his inability to detect it before four months and a half.

The characters of this sound are low murmuring, somewhat cooing, resembling "that made by blowing over the lip of a wide-mouthed phial, and accompanied by a slight rushing noise," without impulse. The sound is synchronous with the maternal pulse, and changes with the woman's circulation. The extent of surface over which the sound is audible varies in different individuals; it is more frequently heard about the situation of the Fallopian tube, on the right side. The other sound detected by the stethoscope arises from the contractions of the fœtal heart. These pulsations range from 120 to 160 in a minute: they are generally very delicate, and are

* Traité des Accouchemens, vol. i. p. 199.

said to resemble the ticking of a watch heard through a pillow. This phenomenon I have never been able to detect before the fifth month, although some writers of eminence state they have heard it earlier. The situation of the sound of course varies with the position of the child; but I believe it to be more frequently heard on the left than on the right side, and generally in a line drawn from the umbilicus to the anterior superior spinous process of the ilium.

Nauche in his "Maladies propres aux Femmes" recommends auscultation to be applied by means of a metroscope, consisting of a tube of wood curved at nearly a right angle, one end of which is to be introduced per vaginam, and applied to the cervix uteri. Nauche states that both he and M. Pichou thus discovered the existence of pregnancy in many cases under treatment as diseases of the uterus; but in this method of examination I have had no experience.

GENERAL SYMPTOMS OF ORGANIC DISEASE.

The commencement of organic diseases of the uterus is frequently latent, and takes place almost insensibly.

At first there is usually an increase of the mucous secretion from the vagina; frequently the menstrual periods last longer, while the intervals are less; not uncommonly there is slight hæmorrhage after connection, which is attended with a more or

less acute pain; or the discharge may supervene after long-continued exercise, especially on foot.

The mammæ sympathise with the uterus, and become enlarged. The erect posture, and especially walking, becomes painful and irksome, from a sensation of dragging at the loins and pit of the stomach; and in process of time there is uneasiness and pain at the groins and upper part of the thighs. The menstrual derangement becomes greater, and is attended with pain and a sensation of heat; and coagula are occasionally passed with the catamenial secretion. Although pain and heat are complained of, the monthly secretion becomes more scant, or is altogether suppressed; this may last for a longer or shorter period, but is frequently followed by copious flooding. As the flooding ceases, its place is supplied by a discharge varying in colour, density, and nature; it may be thick, purulent, yellow, or greenish; it may be watery; it may be whitish and milky; or it may be sanious, reddish, or brownish. This discharge may irritate the parts over which it passes, or it may excite no irritating action; it may be devoid of smell, or it may be fœtid. As the discharge increases the pains generally increase in intensity; they are usually referred to the pelvis, and thence are said to spread over various parts of the body. These pains may be dull and heavy, or they may be lancinating, sharp, and burning; they may be constant, or they may occur periodically, increased by any inordinate excitement of mind or body, and by any thing which

has a tendency to determine the flow of blood to the pelvis, especially sleeping upon a soft feather bed. As the disease advances in the womb, particularly where its volume is increased, a variety of morbid symptoms is complained of: dragging in the loins and hypochondrium; a sensation as of a ball in the vagina; constant desire to micturate, and to evacuate the contents of the rectum, although the attempt is not followed by success, accompanied with hæmorrhoids, which greatly increase the patient's distress. All these symptoms naturally result from the increased weight and volume of the womb, and will be found to accompany simple engorgement, as well as enlargement of the womb from polypus or tumour. The abdomen becomes enlarged, arising in some instances in part from the increased size of the womb, and also from the disengagement of flatus, the result of derangement of the digestive functions; the appetite becomes capricious; there may be occasional vomiting; the patient's temper changes; she becomes irascible, and jealous of contradiction. The symptoms do not long remain local; the constitution soon sympathises; febrile symptoms, with nocturnal exacerbations, evidence themselves; the patient becomes attenuated and feeble; the face loses its colour, becomes sallow, or rather has a peculiar yellowish tinge; the features are sharp; there is a dark areola around the eyes; the eyelids become puffy and œdematous; the skin is harsh; the evacuations take place with more difficulty, and are attended with greater pain, and when

passed there is generally an increase of discharge from the straining that takes place. At length the countenance becomes more sunken, the eyes more hollow, the powers more prostrate, the vomiting constant; the diarrhœa is unconquerable, and the patient dies completely exhausted.

For convenience I shall divide the organic diseases of the uterus into — I. Inflammation and its consequences; II. Diseases of a specific nature; III. Malignant diseases.

PART I.

INFLAMMATION OF THE UTERUS.

Inflammation of the uterus may be either acute or chronic; it may occur in the unimpregnated or parturient uterus.

A. ACUTE INFLAMMATION.

a. *Acute Inflammation of the Unimpregnated Uterus.*

Acute inflammation of the unimpregnated uterus is by no means a disease of frequent occurrence. It may occupy the proper tissue of the organ, or it may extend also to the lining membrane. By some writers, as Burns *, it is said to be more common about the period of the cessation of the catamenia;

* Burns' Midwifery, p. 96.

the cases I have witnessed have occurred in females under the age of thirty-five. It rarely occurs before puberty is developed, although cases are on record in which the disease has shown itself much earlier; one especially is related by Dance * in a child eight years of age.

Causes. — The cases that have fallen under my notice have arisen from suppressed menstruation, or from the use of strong astringent injections to cure a leucorrhœa. Waller, Lee, and other writers, state local contusion as the most common cause; but I have not seen a case in which I could trace such an injury as the exciting cause of the disease.

Symptoms. — The disease is generally ushered in by rigors, followed by febrile excitement; there are heat and pain in the pelvic region, darting into the back through the symphysis pubis, and down to the thighs and groins: if it occur during a menstrual period, the catamenia disappear; if there have been leucorrhœa, the discharge stops suddenly, and the vagina feels hot and dry. If pressure be made by the hand down towards the cavity of the pelvis, the patient suffers considerably.

The pulse is generally quick, sometimes hard, and often sharp; the skin is hot and dry; the local irritation extends to the bladder; there is frequent desire to micturate, and the evacuation of the bladder is attended with pain; there is also considerable pain in the act of defecation. The mammæ sympathise, become swollen and painful; the stomach

* Archives Gen. de Med., Oct. 1829.

is irritable; frequently there is nausea, usually vomiting; the appetite is impaired, and there is great thirst.

Internal examination detects the increase of the size and weight of the uterus, which is frequently somewhat prolapsed; pressure on the organ causes exquisite suffering, and not unfrequently the os uteri is patulous, and directed towards the back of the pelvis.

Diagnosis. — This disease must not, from its symptoms, be mistaken for inflammation of the bladder or rectum; a thorough investigation of the phenomena attending it will prevent us from falling into this error. The pain, heat, tenderness on pressure, and general febrile excitement, will enable us to distinguish it from scirrhus of the womb; while the absence of ulceration, and the other symptoms, will prevent us from confounding it with carcinoma.

Prognosis. — Inflammation of the unimpregnated uterus is but rarely fatal. Three such cases only have I known, the post mortem appearances of which will be presently described.

Terminations. — Acute inflammation of the unimpregnated uterus may terminate by resolution, in softening or "ramollissement," in abscess, in sphacelus or gangrene.

1. *Resolution.* — The most frequent termination is by resolution. It generally happens that after appropriate treatment has been employed the symptoms of inflammation gradually subside, the uterus becomes normal to the touch, and its se-

cretions become healthy. It sometimes happens that inflammation of a chronic character continues for a long period,—a disease at all times difficult of treatment, and generally followed by certain changes of structure. This form of inflammation, with its sequelæ, will be presently detailed.

2. Softening, or ramollissement, is occasionally the result of acute inflammation of the uterus.

In one case to which I have before referred this organic change had taken place; the uterus was swollen, purplish, softened, easily torn, its structure readily breaking down under the finger. This observation agrees with the experience both of Dr. Burns and M. Duparcque.

3. *Abscess.*—I have seen two cases of acute inflammation of the unimpregnated uterus terminating in abscess. The Case No. 3. details the particulars of one. The late Mr. Howship had in his collection a preparation of an uterus, in the parietes of which there was an abscess which contained an ounce of pus. Pus has sometimes escaped into, or has collected in, the uterine cavity *, and has been discharged through the os uteri. But, if the latter be occluded, the matter may escape into the rectum, peritoneum, or cellular membrane of the pelvis.

4. *Gangrene or Sphacelus.*—I have seen no case of acute inflammation of the unimpregnated uterus resulting in gangrene, although such ter-

* Transactions of a Society for the Improvement of Med. and Surg. Knowledge, vol. iii.

mination is mentioned by some authors, as Astruc, Duparcque, &c.

Treatment. — In treating this disease we must be guided by two important circumstances; viz. the severity of the attack, and the constitutional powers of the patient. If the attack be of a very acute character, and if the patient be plethoric, general bloodletting should be resorted to; but if the attack be milder in its nature, or if the patient's powers be moderate, cupping on the loins, or the application of leeches to the vulva, anus, or the os uteri, will be preferable; the amount of blood taken being always proportionable to the constitution of the patient. Some practitioners have recommended scarification of the uterus; if this be determined upon, it may be done agreeably to the method proposed by the late Mr. Fenner of Pentonville. As auxiliary remedies, the hip bath, and tepid anodyne vaginal injections of the Dec. Papav. or the Dec. Conii, should be employed. Whilst pursuing this local treatment, we should endeavour to get the system as quickly as possible under the influence of mercury, and the best preparation is calomel combined with opium.

The bowels must be kept open by the neutral salts combined with antimony. The patient's diet should be unstimulating, and she must be kept free from all excitement of mind and body. If the disease have arisen from suppressed menstruation, the reappearance of the secretion should be strenuously attended to. If the inflammation terminate in abscess, as in the case hereafter to be described,

injection of warm water, or a warm decoction of poppies, should be frequently employed; the patient's constitutional strength at the same time must be supported; her diet must be more generous; and she may take the Decoct. Cinchonæ, the Quinæ Disulphas, combined with acids and sedatives, for generally there is great irritability as well as profuse perspirations. If gangrene occur, of course it will be fatal.

Case I. Mrs. ——, ætat. 24, had been troubled for some time with profuse leucorrhœa, to cure which she obtained a lotion. Its employment caused her considerable pain; but she persevered in its use for two days, when she was seized with rigors, followed by considerable febrile excitement; the abdomen was enlarged and tender; the tenderness was most exquisite when pressure was made downwards into the pelvis; her pulse was quick and sharp, 120; her tongue white and furred; her countenance anxious, and she complained of great thirst. On examination the os uteri was swollen, and very painful on pressure; the uterus itself appeared heavier and larger than natural. As she was a plethoric woman, she was ordered

V. S. ad deliquium animi, posteà Opii g. i. Balneum calidum horâ somni. Ol. Ricini ʒvi. stat. sumend. Hyd. Chlorid. g. i. Ant. Pot. Tart. g. ¼. Pulv. Opii ¼, in formâ pilulæ 4tis horis.

On the next day she expressed herself as feeling better; all her symptoms were improved, but there

still remained a considerable degree of tenderness. Bowels not open.

Hirudines viij. vulvæ applicentur. Enema commune stat. injiciend. et contin. pilul.

From this period she gradually improved, and in the course of ten days was engaged in her domestic affairs.

Case II. Matilda ——, ætat. 21, "was out on a very wet night" during the period of her menstruation; she was also lightly clad, and had been very much heated by dancing.

On the following morning the catamenia had ceased; she had been seized with rigors, which had lasted for half an hour, but when I saw her reaction had taken place; there was considerable pain and tenderness in the region of the uterus, and internal examination confirmed me in the opinion that she was labouring under acute hysteritis.

As she was a delicate young woman, I did not deem it prudent to let blood from the arm; but ordered her to be cupped on the loins to twelve ounces; to have a warm bath, and glyster made of gruel and castor oil immediately; and to take the following pill every four hours:

Hyd. Chlorid. g. i. Ant. Pot. Tart. g. $\frac{1}{8}$. Pulv. Opii g. $\frac{1}{4}$. Conf. Rosæ Canin. q. s. ft. pil.

On the following morning the bowels had been well opened; the tenderness and pain the same as yesterday; p. 130, sharp. Twelve leeches were ordered to be applied to the lower part of the ab-

domen and vulva; her pills to be continued. On the next morning there was no improvement; the bladder had not been evacuated, although the bowels had acted copiously. Twelve more leeches were applied; and the pills, with the addition of one grain of calomel, were ordered to be repeated. About twelve ounces of dark urine were abstracted by the catheter. From this time she gradually sunk; there being great pain and exquisite tenderness to the last, and diarrhœa setting in, she soon expired.

The post mortem condition of the uterus has been already described. (*Vide* p. 22.)

Case III. I was called to Jane P——, æt. 21, a dressmaker; she complained of severe pain at the lower part of the abdomen. She had been to Greenwich Fair, and after heating herself by dancing walked home to London. The night was cold and wet; she was lightly clad, and was menstruating at the time. On the following morning she had a rigor, which lasted for half an hour; this was followed by great heat of skin, delirium, and pain in the lower part of the belly, which continued up to the time I was called. The pulse was 120 sharp; the catamenia had disappeared; she complained of pain in micturition, and at times she was delirious. She was bled to approaching deliquium; leeches followed by cataplasms were applied to the belly; calomel, antimony, and opium were given every four hours; but all were of no avail, as she became

rapidly worse, and died in twenty-four hours from the period of her attack.

Upon a post mortem examination, the peritoneum was found to be free from inflammation, with the exception of that covering the uterus, which communicated a dry sensation to the finger. The uterus was of a dark reddish green colour, soft and lacerable, and in one spot there was a depôt of a purulent-looking fluid, about the size of a kidney bean. The ovaries were of a dark red colour, and the ovarian plexus of veins were highly congested.

I have mislaid the particulars of a case detailed to me by a friend, in which there was an imperforate hymen with retained catamenia; he made an opening into the membrane, and evacuated a considerable quantity of treacly fluid: not content with this, he injected warm water, in order to wash out all the collected secretion. Within twelve hours symptoms of acute hysteritis were developed, which notwithstanding the most active treatment proved fatal. Within the last few weeks I have had under my care a case of imperforate hymen with retained catamenia; the female was in her twentieth year, and the abdomen was of the size of a five months' gestation. A small opening was made through the obstructing membrane, in order that the fluid might be gradually evacuated, and thus the chances of subsequent inflammation be lessened; but, notwithstanding this precaution, urgent inflammatory symptoms, demanding prompt and active treatment, made their appearance.

b. *Acute Inflammation of the Impregnated Uterus* (*Hysteritis*).

Inflammation of the uterus may occur at any time during pregnancy, but it more frequently occurs after delivery, commencing about the second or third day. Cases of hysteritis during pregnancy are not of very unfrequent occurrence; the inflammation may attack the whole organ, or it may be limited to a part. Cases of the former are recorded by Cruveilhier, Danyau, Luroth, Duplay, Morgagni, &c. More frequently, however, a portion of the organ only is affected; and the seat of the inflammation is usually that part where the placenta is attached, terminating in morbid adhesions of that body, and consequently complicating the labour; or it may occur in the lower portion of the cervix, leading to ramollissement of the uterine tissues. It is generally supposed by pathologists that the muscular coat is the tissue primarily affected, although the inflammation may extend to the other membranes.

The causes that may give rise to this inflammation are, cold; mechanical injuries, as a fall, blow, kick; or attempts to induce premature labour, either by mechanical means, or the exhibition of the secale cornutum, or other medicines.

The symptoms that mark this disease are, a constant severe pain or stitch in some part of the abdominal tumour, generally limited in extent, increased by pressure, by the movements of the child,

&c.; not relieved by the recumbent position, or the unlacing of the stays. The pain is continued, although it becomes worse in paroxysms, much augmentation of suffering being produced in most cases by the turbulency of the fœtus.

If the tender and inflamed portion be seated in the lower part of the organ or the cervix, there is frequently tenesmus, and a constant desire to micturate. With these local symptoms there is some febrile action, marked by pain in the head, increased action of the heart and arteries, white furred tongue, heat of skin, loss of appetite, thirst, sometimes vomiting, highly coloured scanty urine, &c.

This disease may terminate in resolution, and the child may be expelled alive, at the full period of utero-gestation; or, if there be great irritability, the fœtus may perish and be expelled prematurely. In some cases there is effusion of lymph, which glues the placenta to the uterus, either in whole or in part. Cases are recorded in which the whole of the placenta was so firmly attached to the organ, that no justifiable force was able to separate the morbid connection; one case of that kind I have myself seen, and a second has been related to me by a friend who has been for many years engaged in obstetric practice.

Cases of partial adhesion are comparatively common, and occur to most practitioners. Ramollissement of the organ is occasionally a sequence of inflammation: such an occurrence seriously implicates the chance of the patient's ultimate recovery;

it too frequently leads to rupture of the uterus during delivery, especially if the child be large, its bones firmly ossified, or the pelvis be small or contracted. Several cases are mentioned by Danyau, Kennedy, Murphy, Collins, Churchill, and others.

I have seen one case in which laceration took place, and where, upon a post mortem examination, the uterine structure at the seat of laceration was soft and readily torn.

Case IV. Hannah A——, a stout plethoric woman, 25 years of age, who had borne three dead children, two of the cases being footling, and her attendant in all a midwife. On the 22d of February, at 8½ A. M., her attendant, Mr. R. Turner, was sent for: he found she had been complaining of slight grinding pains for two or three hours, and that they were rapidly increasing in force and frequency: on examination he found the os uteri dilating; no membranes could be felt; the finger impinging at once upon the child's head, which was in the second position at the brim, not having entered it in the least degree. At 10½ A. M., the os uteri became fully dilated: the pains were powerful, quick in succession, and of an expulsive nature. Matters continued in the same way until 1½ P. M.; when, no advance taking place, Mr. Turner was of opinion that it would be advisable to assist his patient, and for that purpose summoned me. Soon after his messenger had departed, the patient referred all her sufferings to her right side, com-

plaining of an unusual soreness: the uterine efforts now ceased; vomiting, with some difficulty of breathing, supervened, and there was great depression of the pulse. Matters were in this state when I arrived: the patient complained greatly of her side, requested it might be rubbed, and expressed great apprehension with respect to her state. I immediately determined that delivery should be accomplished as speedily as possible, and with this view I applied the forceps; but not succeeding with them, after a sufficient and careful trial, I lessened the fœtal head, and finished the delivery: the placenta was soon expelled, the uterus continuing to contract well; and an opiate was then administered. Mr. Turner continued with her for some time: her pulse rose; but her abdomen became tender, although she expressed herself as feeling more comfortable. At 7½ P. M. the pulse was quickened; and she complained of acute pain in the right shoulder, preventing her from lying on that side. At 11 P. M. she had had some refreshing sleep; the pain in her shoulder was much diminished: hot fomentations were ordered to be applied to the abdomen. On the 23d, the abdominal tenderness was greatly increased, the pulse quick and hard, the vomiting had returned, and, in fact, there were all the symptoms of peritonitis. The bladder was evacuated by means of the catheter: twenty leeches, followed by hot fomentations, were ordered to the abdomen: two grains of calomel, and one grain of opium, were administered at once, followed by the saline mixture

in a state of effervescence. At 1 P. M. the pains were relieved by the leeches; the poultices were borne well; sickness abated; pulse quick, but not so hard. At half-past 4 P. M. great difficulty of breathing supervened, the respiration much hurried. At 9 P. M. the pains considerably diminished; difficulty of breathing great; pulse too rapid to be counted; urine, drawn off by means of the catheter, scanty; great restlessness: she states herself as feeling much better, although she is evidently sinking. At half-past 4 A. M. she died.

Sectio Cadaveris. — The body was examined fifteen hours after death. The abdomen was thickly coated with fat; on exposing the cavity, there were evidences of recent inflammation of the peritoneum: the intestines were slightly glued together. The uterus was rather flabby, and universally of a pinkish-red colour, as if stained: this appearance was not removed by sponging. On passing the hand around the cervix uteri, a longitudinal slit was discovered, at the posterior and right side of the uterus, forming a communication between the peritoneal sac and the vagina, about two inches in length: at the situation of laceration, the uterine tissue was soft and easily lacerable, very different from other parts of that organ. There were about $2\frac{1}{2}$ pints of bloody fluid in the abdominal cavity.

Again, an abscess may be formed in the uterine tissue, which may open either into the organ itself, or into some of the neighbouring viscera. Such cases are related by Siebold, Cruveilhier, Busch, &c.

Case V. I was requested to see Mrs. C., a lady 24 years of age, who was in the sixth month of her second pregnancy, having previously aborted at the fourth month. On inquiry, I found that for a week she had suffered from constant acute pain in the passage and above the pubes, increased upon her assuming the erect posture, moving her thighs, and also during the expulsion of the contents of the rectum and bladder: the pain did not extend to the back or thighs, and there was no vaginal discharge. The pulse was quick and sharp; the skin hot and dry; the tongue furred; and the bowels, which had been opened in the morning, had caused her great increase of suffering. The fæces were very hard.

Twelve leeches were applied around the vulva, and above the symphysis pubis. The Decoct. Papav. was ordered to be frequently injected into the vagina; and the following medicine was prescribed:

Ol. Ricini ʒ vi. stat. sumend.
Liq. A. Acet. ʒ i. Sp. Æth. Nit. ʒ i. Tinct. Hyoscyam. ʒ i. Liq. Ant. Pot. Tart. ʒ ifs. Aq. M. Viridis ʒ vs. Ft. mist. sumat. coch. ij. ampla 4tis horis.

On the following day, her symptoms were not improved; the pain was not ameliorated, although the leeches had bled freely, but was of a more throbbing character: her bowels had been opened three times, the motions fluid, but their passage was attended with great pain. Twelve more leeches were ordered; the mixture and warm injections to

be continued. I was called to her early the next morning; and was informed, that, after passing a very bad night from excessive throbbing and pain, there had been a sudden copious discharge of pus mixed with blood: its quantity could not have amounted to less than three ounces, and its evacuation was followed by immediate relief. Internal examination was now for the first time permitted: the vagina itself was ascertained to be natural to the touch; but on the right side of the mouth of the womb a large cavity was found: this was the seat of an abscess, which had ulcerated, and burst into the vagina: the opening was so large, that it could not have altogether been caused by the process of ulceration. The vagina was ordered to be syringed several times a day, with warm water. For several days the discharge continued copious, but gradually became smaller in quantity, and thinner, at times being streaked with blood. Examinations, which were occasionally instituted, confirmed the opinion that the abscess was closing from the bottom; and in about three weeks from the evacuation of the pus, it had healed; its seat being readily ascertainable to the finger, by the presence of a cicatrix, and a circle of induration. This lady, unfortunately, was obliged to move some miles from town, having changed her place of residence. The exertion she was compelled to make, superadded to the jolting of the carriage, induced great pain in the loins, back, and thighs, accompanied with discharge of blood from the os uteri.

Notwithstanding all the means recommended and usually found of service in preventing premature labour were had recourse to, they proved of no avail; for in three days after the first appearance of these untoward symptoms, discharge of the liquor amnii took place, the uterine contractions returned, were regular, and of an excruciating character. The feet of the fœtus presented: after some considerable time, owing to the non-dilatability of the os uteri, the nates passed, but the greatest difficulty was experienced in the passage of the head. But little assistance could be rendered by traction, as the child was in so decomposed a state, that very little force would have been required to have separated the trunk and left the head in the uterine cavity. At length, during a powerful fit of vomiting, the head suddenly slipped from the uterus, followed by the placenta. Her convalescence was rapid. This lady has again been confined, and but little impediment was offered to the dilatation of the os uteri. Twelve months elapsed between the two labours.

In Bonet. Sepulchret. Vol. II. lib. 3. sect. 38. obs. 2. § 3. a case is recorded which occurred to Dobrzensky. The woman was the wife of a soldier, who was in labour for five or six days; and at last died, worn out with pain. The uterus being inspected, a large abscess, filled with very putrid pus, was found in the neck.

A very rare termination of hysteritis is gangrene, described by the Germans under the name of

putrescenz or putrescirung. Such cases are related by Boer, Danyau, Ricker, &c.

The constant pain, its circumscribed character, and its constitutional symptoms will distinguish this disease from rheumatism of the uterus, with which it is most likely to be confounded.

Treatment. — It is seldom necessary to have recourse to general bloodletting; in fact the patients in whom this disease occurs are for the most part highly irritable women, who could not bear venesection. It is in most cases sufficient to apply leeches, and these should be followed by a succession of warm cataplasms. If necessary the leeches should be repeated, but in all cases we must bear in mind that as little blood as possible is to be taken, as women who have been subjected to losses of blood during pregnancy are more prone to hæmorrhage during labour. After the acute symptoms have been subdued, much benefit will be derived from blisters; and a repetition of the blister, in my opinion, is preferable to the keeping one open.

Calomel in combination with opium should be given until the gums are slightly affected, and this mercurial action should be maintained for some time. Hip baths and anodyne enemata are occasionally of advantage.

Hysteritis, however, more frequently occurs after delivery. Primiparæ are, perhaps, more liable to it than women who have borne children: it may be caused by the injection of cold water or styptics

into the viscus to allay hæmorrhage; it may be excited by violent grasping of the uterus with the hand; it may be produced by violence in performing the operation of version; or it may be developed where instruments have not been employed with that gentleness and skill which ought always to accompany their application.

This disease commences from the second to the fifth day of delivery; it is ushered in by rigors, followed by considerable febrile reaction; there is pain at the lower part of the abdomen, which gradually increases; the pain is constant, but aggravated in paroxysms. The uterus is found to be large and tender on pressure; at first there is no general swelling or tenderness of the abdomen; but if the peritoneum become involved these symptoms rapidly become developed.

The patient complains of the pains extending to the loins, groins, and thighs, and these are in most cases aggravated when the child is applied to the breast. Sometimes there is difficulty in voiding the urine, which is turbid and high coloured; at other times there is tenesmus, the lochia are generally suppressed, and, if the secretion of the milk be not lost, it is diminished. The patient is generally attacked with sickness and vomiting, the bilious fluid increasing the headache, the tongue is white, the pulse is quick and soft, but, if the peritoneum become involved, it is sharp and wiry.

The disease may terminate by a profuse offensive lochial discharge, by a flow of blood from the

womb, by copious perspirations, &c., but in many cases the pain continues, the pulse becomes more rapid, the abdomen becomes generally tender and tympanitic, the vomiting increases until green or dark-coloured fluid is voided and the patient rapidly sinks.

The post mortem appearances usually found are enlargement of the uterus, which is mostly œdematous or doughy; its colour may be yellow, grey, blue, or red; sometimes it is covered with a viscid purulent deposit, sometimes by false membranes, accompanied with a copious effusion of flaky serum in the abdominal cavity, a considerable quantity of which is found in the utero-vesical and utero-rectal pouches. Pus is sometimes found in the parenchyma of the organ; this may be collected in one abscess, it may be deposited in several spots, or, it may be infiltrated throughout the fibres of the viscus. In some cases this fluid is found in the uterine tissues and veins, especially where the latter are conjoined to the ovarian plexus.

In most cases the parenchyma is of a dark red, or greyish colour, and is readily lacerable. The lining of the uterus is generally of a dark colour, soft, and readily scraped off with a scalpel.

Treatment. — If the patient be plethoric and strong, and if her constitutional powers be vigorous, the lancet should be had recourse to, and blood drawn until a decided impression is made upon the system; the necessity for its repetition must depend upon its effect on the disease, on the constitution,

&c. If the patient's powers forbid the abstraction of blood generally, twenty-four or thirty leeches should be applied over the region of the uterus, and their subsequent bleeding encouraged by the continued employment of cataplasms, made of linseed meal mixed up with the decoct. papaveris, or conii or if the patient complain of their weight, of bran. The bowels should be evacuated by mild laxatives, but drastic purgatives should be avoided, as they invariably augment the patient's sufferings. Diaphoretics combined with antimony may be persevered in, with the repeated application of anodyne fomentations. So far as my experience has gone, mercury seldom appears to exercise any salutary influence over this disease; when it has been administered so as to affect the system rapidly, it seems to hasten the patient's dissolution, provoking diarrhœa, &c., and I have long since omitted its employment. I usually depend upon the abstraction of blood generally and locally; the repeated use of anodyne fomentations, and the exhibition of diaphoretics, a combination of antimony with Dover's powder: the last I regard as a most valuable adjuvant in the treatment of this disease.

We not unfrequently find that women who have suffered from hysteritis do not again become pregnant. This will in most cases arise from closure of the Fallopian tubes, preventing the admission of the semen to the ovaries.

Case VI. M. B. æt. 24. Delivered of her second child January 14th; after the birth of the child there was a relaxed condition of the uterus, attended with considerable hæmorrhage: cold affusions, the secale, grasping the womb, and injections of cold water, were the remedies employed to stem the bleeding. On the third day, symptoms of hysteritis made their appearance, the uterus was swollen, and the abdominal tenderness was confined entirely to its situation. The pains were severe, increased in paroxysms, especially when the child was applied to the breast, the pulse was 120, full and compressible; no lochia, mammary secretion diminished, bowels not open; she was ordered

Pulv. Jalap. c. Hyd. ℈j stat. Hirudines xx. inferior. Abdom. posteà Catap. Lini. ℞. Pulv. Ipecacuan. c. gr. v. 4tis horis.

On the following day the tenderness and pains were much relieved by the leeching and purgatives, the uterus still large, lochia scanty and offensive.

P. c. Med.

During the night a profuse and very offensive vaginal discharge supervened, which continued for about twelve hours; from this time her symptoms gradually ameliorated, and she became convalescent.

Case VII. S. S. delivered of a still-born child by the operation of turning, after the liq. amnii had been expelled for sixteen hours, the presentation being the shoulder. Considerable difficulty was experienced in the performance of the operation

from the close contraction of the womb around the body of the child, although bleeding and the exhibition of tartar emetic were premised. On the third day the symptoms of hysteritis were ushered in by a very severe and long-continued rigor. At first, the inflammation was decidedly confined to the uterus, but the usual remedies failing to check it, inflammation of the peritoneum supervened, the pulse, which had been quite soft and compressible, became small and wiry; the abdomen, which was free from distension, became tympanitic; the tenderness, which had been confined to the region of the uterus was spread over the whole abdominal surface; and the pains, which at first occurred in paroxysms, became constant: vomiting, first of a dark bilious, then of a green matter, took place, and the patient rapidly sank.

Upon a post mortem examination, in the peritoneal cavity there was found a considerable quantity of non-plastic effusion, mixed with some patches of lymph, especially in the angles of the intestines, the utero-vesical, and the utero-rectal pouches; the fluid was abundant. The uterus was large, of a green colour, soft, lacerable, and apparently œdematous; the lining of the womb was of a dark grey colour, and readily scraped off with a scalpel. No pus could be detected in the uterine sinuses, nor in the parenchyma.

Case VIII. Jemima B——, a strumous looking young woman, delivered of her first child after a

labour of ten hours' duration. She progressed favourably until the evening of the fourth day, when she was attacked with a violent rigor: when visited on the following morning the symptoms of acute hysteritis were plainly marked. Her pulse was 125, full and compressible; abdomen, tender, and enlarged inferiorly by the uterus, there was no tympanitis, the bowels had been opened; she complained of difficulty and pain in micturition; the lochia were deficient, the secretion of milk scanty, and whenever the child was applied to the breast, the abdominal pains were greatly aggravated. Twenty-four leeches were placed over the region of the uterus, and afterwards warm linseed meal cataplasms were continually applied. She was ordered,

Hyd. Chlorid. gr. v. Pulv. Jalap. ℈j. st. sum. Ant. Pot. Tart. gr. ¼. Pulv. Opii gr. ¼. Conf. Rosæ Canin. q. s. Ft. Pil. 4tis horis sumend.

The vagina was syringed with warm decoct. of poppies: on the next day the uterine pain and tenderness had diminished, although its size remained about the same; in the evening some discharge of an offensive character followed the employment of the syringe: the pills were continued. On the following morning there was considerable uterine hæmorrhage, both fluid and coagulated, attended with fainting, loss of pulse, &c.: the patient was kept cool, her medicines were omitted; in the evening the discharge had abated, but she complained of some soreness of her mouth; her bowels had been opened twice during the day, attended

with tenesmus; this gradually increased, reducing, to a still greater degree, the enfeebled powers of the patient, but at length subsided by the employment of starch injections, the exhibition of Dover's powder with the chalk mixture and catechu. Her convalescence was expedited by the use of the cusparia.

B. CHRONIC INFLAMMATION.

a. *Chronic Inflammation of the Body of the Uterus.*

Not unfrequently after the more violent symptoms of hysteritis have subsided, or have been subdued by the remedies employed, there is still a low degree of inflammation present which harasses the patient and perplexes the practitioner for a considerable time.

In some cases the inflammation is of a sub-acute kind from the first, and especially in those cases where the secale cornutum has been given improperly. I had under my care five females attended by the same individual, to all of whom he had given the secale, and who were affected by the same symptoms: central pains, increased upon assuming the erect posture, by defæcation, and micturition; tenderness above the pubes; thick white discharge, at times streaked with blood. There was considerable constitutional irritation, marked by a quick small pulse; heat of surface, alternating with chills; coated furred tongue; scanty, high-coloured urine;

thirst; loss of appetite, &c. On vaginal examination, the uterus was found to be enlarged, the os tumid and tender, and great pain was excited by pressing with the finger upon the cervix.

The symptoms lasted for many weeks, reducing the patient's strength, and causing much anxiety to herself, her friends, and medical attendants. Patients who have thus suffered, in my opinion, are not prone to re-conceive; and not unfrequently the pathological changes produced in the structure of the uterus srves as a nidus for the deposition and subsequent development of malignant disease.

The treatment of this form of the disease consists in the occasional topical abstraction of blood, by cupping on the loins or by leeches; these seem to act more favourably when applied to the os uteri itself; the use of anodyne injections, as those of conium and poppy; the administration of alterative purgatives to prevent constipation; and salines, until the febrile excitement has been reduced. When this has been accomplished, mild bitter infusions, as the calumba, or cascarilla with liq. potassæ, and generous nutritious diet will be found of great service.

During the progress of the treatment the patient must scrupulously avoid sexual intercourse, as the disease is thereby aggravated; and in some instances I have known the husband affected with a discharge from the penis, in my opinion altogether produced by the unhealthy irritating secretion from the uterus. After the active symptoms are subdued,

the patient will derive great benefit from the use of tepid salt water baths, and a residence by the sea-side will hasten the recovery.

Case IX. Jemima ——, aged 20, married at 19; gave birth to a living boy eleven weeks since. Her labour commenced at 4 P. M., and she was delivered at noon on the day following: the child presented naturally, her pains were regular but short, and this circumstance actuated her medical attendant to give her a dose of the ergot, and to follow that by a second. Her pains now became constant without intermission, and attended with the most severe cramp in the abdomen and lower extremities; matters continued in this state until the birth of the child in one hour and a half after the exhibition of the first dose of ergot; during the passage of the head, a considerale laceration of the perineum took place. The placenta was removed by the attendant in half an hour after the birth of the child. Her mother informed me that she has not been free from pains since her confinement; they are aggravated by the erect or sitting posture, by the attempt to relieve the bowels, and when she drinks warm liquids. There is a scanty secretion of milk, there is a slight vaginal discharge, yellow, thick and occasionally sanguinolent. The hand placed upon the lower abdomen feels the uterus above the symphysis; and moderate pressure causes her great pain. Internal examination occasioned great suffering, the uterus was large, hot, and weighty, the

lips tumefied and excessively tender, the finger when withdrawn was smeared with a thick, yellow, sanguinolent discharge.

She was ordered to have eight leeches applied to the groins every fourth night; to inject the tepid decoction of poppies three times a day into the vagina, to keep the bowels soluble by castor oil, and the following medicine was prescribed:

℞. Hyd. c. Cretâ gr. iij. Ext. Conii gr. iv. Ft. Pilulæ ii. horâ somni sumend.

Strict injunctions were given for her to sleep apart from her husband.

This plan of treatment was persevered in for six weeks, at the end of that time she went into the country for a month, and returned much improved in health and appearance.

Case X. Hepzibah P——, the mother of nine children, came to me, complaining of pain in her back, extending to the abdomen and thighs. She stated she had felt those pains since her last confinement, which took place three months since. About one hour before the conclusion of her labour, the surgeon in attendance gave her two doses of a powder resembling "coffee grounds," which produced most violent "crampy" pains in the stomach, continuing without intermission until the child was born.

Upon vaginal examination, the uterus was enlarged, turgid and tender, the lips swollen and

tense, the examining finger was covered with a muco-purulent discharge mixed with blood. Her bowels were habitually costive, and great pain was experienced when she had a motion.

She was ordered,

Hirudines vj. inguinibus bis in hebdomad.
Fotus Conii pro Lotione, t. d. injiciend.
℞. Pil. Hyd. gr. ij. Ext. Conii gr. iij. Ft. Pilula omni nocte sum.
℞. Liq. A. Acet. ʒijss.
Sp. Eth. Nit. ʒiv.
Tinc. Hyoscy. ʒiij.
Aq. Men. Pip. q. s. Ft. Mist. ʒ xij. cujus cap. coch. ampla duo ter quotidie.
℞. Ol. Ricini ʒvj. pro re natâ.

This plan of treatment was steadily persevered in for six weeks, care being taken to keep her free from all mental and bodily excitement, (especially sexual intercourse). At the end of that time the uterus was reduced in size; there was no tenderness; no discharge, and she appeared to suffer merely from debility: she was ordered to the sea-side, and at the end of six weeks returned to town in the enjoyment of good health.

b. *Chronic Inflammation of the Unimpregnated Uterus.*

Chronic inflammation of the unimpregnated uterus may affect the whole organ, or it may be confined to the os and cervix.

Symptoms. — Even when the whole organ is affected, the symptoms are much less intense than in

the acute form: there is generally a dull pain in the lower part of the abdomen, with a sense of weight, increased upon evacuating the bladder or rectum, or in assuming the erect posture, and there is a dragging pain in the loins. The pulse is sometimes rather quicker than natural, but is capable of being easily accelerated, and it is generally soft. There is frequently vomiting and loss of appetite; the mammæ generally sympathise, become painful and tumid, especially at the menstrual periods; the catamenia are more or less disturbed; in some patients they are entirely suppressed, while in others they are more abundant than usual, although their character may differ from the natural secretion, being frequently mixed with coagula or pieces of membrane.

Between the menstrual periods there is usually a discharge, varying in appearance and density; thicker and more yellow previous to and after the menstrual period, and occasionally streaked with blood.

Vaginal examination gives evidence of the increased volume of the uterus, probably from engorgement; the neck is usually swollen, and the heat of the parts is augmented.

Examination "per rectum" will detect the enlarged and swollen uterus pressing upon the bowel, and so account for the difficulty with which the fæces are voided, as also the frequent desire to empty the rectum.

The symptoms of inflammation of the os and

cervix uteri, are pain and aching in the lower part of the abdomen and loins, especially increased whenever the abdominal or lumbar muscles are used; frequent desire to evacuate the bladder and to pass the fæces; the pain is also greatly increased by copulation. The constitutional symptoms are not usually of a very urgent nature. The symptoms are all increased at the time of menstruation, which function is oftentimes painfully, sparingly, and difficultly performed. There is also an opaque discharge of a white colour, said to resemble a mixture of starch and water made without heat, or, as Sir C. Clarke has it, "thin cream." The discharge is readily washed from the finger after examination, and during the ablution the water will become turbid from its ready diffusibility. Sometimes the discharge is of the consistence of glue.

Vaginal examination detects the os and cervix to be swollen, and exceedingly tender on pressure; the heat of the parts is also increased.

Diagnosis. — Chronic inflammation of the womb is recognized from scirrhus by the great pain, heat, tenderness on pressure, and general symptoms, and from carcinoma, by the absence of ulceration. The uneasiness and difficulty which accompany the evacuation of the bladder and rectum might lead us to suspect disease of either of these viscera: but internal examination prevents our attributing to inflammation the symptoms of either of these organs; for inflammation of the os and cervix uteri may be

recognized by the white creamy discharge, and by the great swelling and tenderness of the parts.

Termination. — Chronic inflammation of the body of the uterus may terminate,

I. In *Hypertrophy.* — In hypertrophy there appears to be a permanent augmentation of the tissues of the uterus itself; and if an organ so circumstanced be divided with a knife, it will be seen to have its texture more firm, and generally of a greyish colour.

II. *Engorgement.* — In engorgement, the uterine vessels seem to be dilated and enlarged. Where this is the result of chronic inflammation, the menstrual periods are more quick in their recurrence, and last for a longer time than natural; in many cases, from seven to ten days.

III. *Induration.* — A very common result of chronic inflammation of the womb, particularly its os and cervix, is induration; its surface will be found to be round and smooth; and at the same time its increased hardness and firmness will readily detect it.

IV. *Simple Ulceration.* — This termination not unfrequently follows inflammation of the os and cervix uteri, particularly where that inflammation has been caused by the attrition of foreign bodies, as, for instance, a pessary.

The simple ulcerations are frequently not to be felt by the finger, however well educated; it is by the aid of the speculum that we are enabled to detect them: they generally are at first very small

and numerous; but as the disease advances they coalesce, their surface is more or less red, and their edges are well defined. If ulceration be present, the finger, when withdrawn after examination, will be smeared with a yellowish or dirty-white discharge, occasionally streaked with blood, but having no fœtor.

V. *Enlargement of the Glands.* — Inflammation of the os and cervix uteri is frequently followed by enlargement of the glands: sometimes they are few in number, about the size of small beads, whitish and firm; at other times they are not larger than millet-seeds, giving the os and cervix a granular feel: they are readily seen by the assistance of the speculum, and have been accurately described by Boivin and Dugès.

Causes. — The causes of this chronic inflammation are said to be cold, excessive coition, irregular habits, mechanical irritation, &c. &c. The exhibition of the secale cornutum I have known followed in several instances by chronic inflammation of the body and neck of the uterus. Another cause of inflammation of the os and cervix uteri, and one by no means of unfrequent occurrence, I believe to arise from the irritating nature of the male semen.

Treatment of Chronic Inflammation of the Unimpregnated Uterus. — The treatment of chronic inflammation of the body and cervix uteri is simple, and if undertaken before any special change in the structure has occurred is generally successful.

1. *Rest.* — Freedom from active exertion is in-

dispensable in this disease: long continued walking, dancing, or other active exercise, having a tendency to determine to the pelvis, must be avoided, the recumbent posture must be enjoined, but riding in an easy carriage is not objectionable.

2. *Sexual Intercourse.* — The patient should not indulge in sexual excitement during the treatment, more especially if there be inflammation of the os and cervix; and in order to prevent excitement of this kind as much as possible, it will be better for her to "take the widow's sombre cap" for a limited period.

3. *Bleeding.* — If there be much tenderness and swelling of the os and cervix, or if there be tenderness or congestion of the body of the uterus, bleeding must be practised. It is seldom necessary to bleed generally; local depletion is in most cases sufficient: this may be effected by cupping on the loins, to the amount of ten, twelve, or sixteen ounces, according to the severity of the symptoms, and the patient's constitution. It is frequently necessary to cup a second and even a third time. Leeches also may be applied to the os and cervix: their application is generally attended with immediate relief. The speculum or the vaginal leech-glass serves well for this purpose. Four or six leeches applied every third day for a week or two generally answer the purpose of abating the inflammation, tenderness, and congestion. Scarifying the os uteri has been recommended by some practitioners, especially by the late Mr. Fenner of Pentonville. I had per-

formed this operation several times, and in many cases with success, before the publication of this gentleman's opinions. It is an operation unattended with any amount of pain, and when performed is generally followed by a pretty copious flow of blood: but it is seldom that one operation is sufficient; in most cases it ought to be repeated every third or fourth day, until the symptoms are removed; but, at the same time, I have known many patients altogether object to its performance.

4. *Hip-bath.*—The hip-bath is a most useful auxiliary; the patient may have recourse to it twice or three times a week during the progress of her treatment. Some practitioners object to its employment, on the ground that it determines to the pelvic vessels, and thereby increases the malady it is intended to remedy: such, however, is not the result of my experience. I have generally found it followed by a copious general diaphoresis, which acts well, by tranquillizing the patient, and affording relief to the pelvic pains and uneasiness under which she labours.

5. *Purgatives.*—The exhibition of neutral saline purges is generally useful; for not unfrequently there is considerable torpor in the intestinal canal. The employment, therefore, of these purgatives is salutary in obtaining daily evacuations, and determining to the bowels, and so increasing the secretions: they thus answer two purposes; they obviate constipation and produce derivation.

All drastic purges must be avoided, especially

aloetics, and medicines which possess emmenagogue properties, as their exhibition is almost invariably followed by an aggravation of all the unfavourable symptoms.

6. *Sedatives.* — The exhibition of sedatives, especially at night, is attended with great advantages. Perhaps, of all others, the Ext. Hyoscyami is the best, as, while it possesses the power to control the irritability which frequently persists in this disease, it has no constringent effect upon the secretions. Where the bowels are relaxed, or where there is much tenesmus, the Pulv. Ipecac. comp. will be found to be a valuable remedy. I am in the habit of combining a tonic with the neutral salt and sedative, in cases where the active symptoms have been lowered by depletion, and other remedies. A very frequent formula with me is the following:

℞. Mag. Sulph. ʒ ss.—ʒ j. Tinct. Hyoscyami ♏. xx.—♏. xxx. ter die in Infus. Gentianæ C., Infus. Calumbæ, vel Infus. Cascarillæ.

If the tenesmic symptoms be very urgent, and the internal exhibition of Dover's Powder do not avail, I have found great benefit from the exhibition of an enema of

Decoct. Amyli, ʒ iv. Tinct. Opii, vel Liq. Opii Sed. ♏. xxx.

repeated according to the effect produced; but one injection has generally proved sufficient.

7. *Vaginal Injections.* — The employment of vaginal injections is of great value, especially where the os and cervix uteri are inflamed. In the more active cases the Decoct. Conii or Decoct. Papav.,

injected warm into the vagina, is a very soothing application, and is attended with beneficial results. To either of these may be added the Liq. Plumb. Diacet., in the proportion of two drachms to a pint, the quantity being increased as the disease becomes more chronic. In the advanced stages, the Decoct. Papav. cum Alumine, in the proportion of two drachms of the latter to a pint of the former, is a very valuable remedy: but in employing vaginal injections we must be especially careful to refrain from the use of astringents while there are symptoms of activity about the disease. Remove these, and then astringents will be found beneficial, commencing with the mildest, and gradually increasing their power as the disease becomes more chronic, or the discharge lessens in quantity and alters in its character.

8. *Diet*, &c. — The diet of the patient should be bland. Farinaceous food is the best where the active symptoms are present. All stimulating articles of diet, especially fermented liquors, must be abstained from. High-seasoned and salt meats must not be taken. As the symptoms become ameliorated, and as the disease becomes more chronic, boiled mutton, mutton-chops, poultry, fish, &c., may be allowed; but the practitioner must of course regulate the diet according to the symptoms present in every individual case.

c. Treatment of the Sequelæ of Chronic Inflammation of the Uterus.

I. *Hypertrophy.* — Hypertrophy of the uterus, resulting from chronic inflammation, from whatever cause such may have been induced, is at all times difficult to treat, and requires a great degree of patience both on the part of the practitioner and the patient herself.

The most successful treatment that I have seen —and my views have been formed from the results of several cases— consists in the occasional employment of

1. *Leeches.* — Six or eight leeches should be applied over the region of the uterus twice a week for several weeks. It is of no use applying them for two or three times, as they will be of no avail; they must be steadily persevered in until a change takes place in the size and weight of the organ.

Twice a week is sufficient, unless there be an increase of pelvic pains referrible to the uterus, when they must be resorted to more frequently.

2. *Mercury.* — The exhibition of mercury at the same time that we are using local depletion is of service in many cases. The preparation employed should depend upon the symptoms and idiosyncrasy of the patient, &c. The preparation I generally use is the Hyd. c. Cretâ, exhibited twice a day until the system is gently affected, and this continued every night, or every alternate night. Mercury alone, or mercury without the occasional employ-

ment of leeches, is not so serviceable. At the commencement of my professional life I frequently used mercury without employing depletion, and I rarely succeeded in lessening the size and weight of the womb. I soon, however, learned the value of occasional leechings, so that now I always combine them. But even after depletion mercury alone does not act so quickly or so well as mercury combined with

3. *Iodine.* — The protiodide of mercury, exhibited in sufficient doses twice a day, and then repeated every night, acts most surprisingly upon hypertrophy of the uterus. In one case, where the hypertrophy resulted from a severe kick, and where the uterus was nearly the size of a fœtal head, the exhibition of this remedial combination had a marked and beneficial effect.

This remedy seems to possess all the requisite qualifications of the mercury; at the same time it assists in the absorption, and prevents the distressing effects on the constitution which this mineral is so apt to produce.

Some practitioners have recommended the external application of iodine, either in the form of liniment or ointment, rubbed over the lower abdomen and above the pubes. The patient can seldom bear this treatment where leeches are being applied every third day; but if depletion be deemed inadvisable, or if it have been discontinued, this mode of treatment may be employed. If it do no good, it cannot, in my opinion, do any harm, and it may possibly assist in the absorption we wish to effect.

General Treatment.—At the same time that we are having recourse to leeching, mercury, or iodine, or both, in the treatment of this disease, we must be careful not to allow our patient's constitutional powers to become too much impaired; we must prescribe nutritious diet, of a bland, unirritating character, and easy of digestion; we must attend to the state of the primæ viæ, keep the intestinal tube clear from accumulations, and maintain all its secretions free. It is frequently necessary to exhibit tonics; and none, in my opinion, are to be preferred to the mild bitter infusions. Sexual continence must of course be enjoined.

Case XI. Emily P——, a young woman, 25 years of age, of fair complexion, and pale exsanguine countenance, married at the age of 16, has given birth to five children, all of whom, with the exception of the last, were born alive. Her last labour was lingering, of forty-eight hours' duration; and the child presenting with the shoulder, the operation of version was performed. Since her delivery she has not been free from pain. There is great bearing down, constant weight, tenesmus, difficulty in micturition, and a copious leucorrhœal discharge. The catamenia appear every fortnight, and last for four or five days, and are occasionally mixed with coagula.

On vaginal examination, the uterus was found to be increased in size and weight, and to press low in the pelvis; a firm cicatrix was to be felt upon the middle of the posterior lip. When the hand was

placed above the pubes the enlarged viscus could be readily detected.

She was ordered

Hirudines xij. reg. pub. et inguin. bis hebdom. Fotus Conii ter die injiciend. Pil. Conii c. Hyd. o. n. Mist. Mag. c. Mag. Sulp. ½. ter quotidie.

This treatment was persevered with for three weeks, when the medicine was changed for the following: —

Hyd. Protiodid. gr. ss. Conf. Rosæ Canin. q. s. Ft. Pil. omnî nocte sumend. horâ decubitûs. ℞. Pot. Iodid. gr. iij. Ext. Sarsæ. gr. x. ter die ex Mist. Camph.

In this plan she persevered for six weeks, and during that time she was twice leeched, as she suffered from severe pain. The uterus became at first softer, then smaller, the intervals between the appearance of the catamenia more distant, they continued but for three days, and were of a natural colour.

I saw this patient about six weeks since; she was apparently in good health, and free from suffering.

II. *Engorgement.* — By "engorgement" I mean a varicose distended condition of the uterine vessels. The uterus, when visually examined, has a livid appearance. In its treatment, even after all symptoms have subsided, much benefit will be derived from 1. Occasional leeching. Six or eight leeches should be applied at intervals of from four to six days, the number of applications of course depending upon the nature of the case and the effect of the previous leechings.

2. *Injections.* — Vaginal injections are of great service in constringing and giving tonicity to the dilated vessels. A solution of alum, two drachms to the pint, or the Liq. Alum. C., with half the quantity of the sulphate of zinc; a solution of Ferri Sulph. ʒj.—oj.; the Decoct. Quercûs; and the Infus. Tormentillæ are valuable auxiliaries in the treatment.

The strength of the injections should be such as not to cause any pain in their employment: of course they are to be used cold.

3. *Tonics.* — The patient will derive great benefit from the continued and regular exhibition of tonics, commencing with those which are most readily borne by the stomach, and gradually changing them for those of a more powerful nature.

The mild vegetable tonics, as Calumba and Cascarilla, should be first administered; and after these have been persevered in for some time they may be changed for the mineral tonics, the sulphates of iron or zinc. In these cases there is generally a very unequal distribution of the circulating fluid, the patient, for the most part, having cold extremities. This partial circulation is remedied in a great measure by perseverance in a tonic plan of treatment.

4. Sea bathing, in the chronic form of this complaint, I have frequently found of immense use in equalizing the circulation, improving the general health, and increasing the appetite. Where this cannot be had, a good substitute will be found in

bathing the loins with bay-salt and water night and morning, afterwards taking care diligently to rub the loins with a coarse towel. This produces a glow over the whole surface, and is usually attended with beneficial results.

5. *Diet.* — The patient's diet must be nutritious, light, and easy of digestion; she should particularly avoid articles of food that are salt and dried, or that tend to produce flatulence and indigestion. A moderate portion of malt liquor, as bottled porter, Dublin stout, or good ale, will be found of service. If wines be taken, they should be of the lightest kind, and in very moderate quantity.

Case XII. M. T., aged 44, has borne nine children, and has miscarried once. She commenced to menstruate at the age of fifteen; and at these periods she was frequently confined to her bed from the excessive pain. The secretion was skinny, and occasionally mixed with coagula. She complained of pain in her back, loins, and thighs. The catamenia have been upon her for three weeks; and they have usually occurred at intervals of from two to three weeks for the last twelve months. Between the menstrual periods there is some white leucorrhœal discharge. Upon vaginal examination the uterus was found to be enlarged, its vessels strongly throbbing, and its weight much increased; the os uteri was swollen, turgid, and highly vascular: with the speculum, its colour was seen to be livid, and no abrasion could be detected upon the os or cervix.

She was ordered to have six leeches applied to the vagina twice a week, to use a mild astringent injection, the Dec. Tormentillæ c. Alumine; and the following medicines were prescribed: —

℞. Pil. Hyd. gr. ij. Ext. Conii gr. iij. M. ft. Pil. omni nocte sumend.
℞. Mag. Sulph. ʒ ss. Tinct. Cinch. C. ʒ j. Syr. Aurantii ʒ ss. Inf. Gent. C. ʒ x. Ft. Haust ter quotidie sumend.

Continuing this treatment for ten days, her gums became rather tender; the uterus, on examination, was smaller, less swollen, and turgid. She was ordered to repeat the pill every other night, to increase the strength of her vaginal injection, and to continue the mixture. She persevered in this plan of treatment for five weeks, and at that time was perfectly convalescent.

Case XIII. M. A. B., aged 45, married at 25, has had seven children born alive. Her labours have been natural, with the exception of the second, in which the child presented transversely, and version was performed. She menstruated at the age of fourteen, and at the age of fifteen suffered from amenorrhœa with chlorosis. This lasted for twelve months; and during that time she took a very great quantity of medicine, with the effect of inducing the re-appearance of the catamenia, which, although regular in their periods, became altered in their character, being mixed with "pieces of membrane" and "small dark clots." During their continuance the pain in the loins, lower abdomen, and hips,

together with the sickness, were sufficient to confine her to her bed. The attacks of the dysmenorrhœa lasted until she married, at the age of twenty-five. Her present symptoms are; catamenia occur every two weeks, and last from seven to ten days: they are usually mixed with blood; and when the red discharge is absent, there is a thin white serous discharge. She complains of a constant weight, with bearing down, tenesmus, &c. Upon examination, the uterus was found large, heavy, and congested, the os uteri turgid, swollen, its edges everted but not indurated. Visual examination with the speculum displayed the uterus of a livid colour, more especially the anterior limbus of the os. She was ordered

C. C. Lumbis ad ʒ viij. and Ol. Ricini ʒ vj. stat. sumend.

On the following day there was less weight and fulness. She was ordered

Hirudines iv. Vaginæ applic. bis hebdom. Lot. Alum. comp. cum dimid Zinci. Sulph. ter die injiciend. Pil. Hyd. gr. ij. Ext. Conii. gr. iij. Ft. Pil. o. n. sumend., et Pulv. Cinchonæ cum Sodâ Sesquicarb. ter quotidie.

This plan of treatment she continued for four weeks, with the effect of gradually reducing the size of the uterus, altering its colour, and lessening the turgidity of its mouth.

Her husband had been paraplegic for nine months, so that no sexual intercourse had taken place for at least that time.

III. *Induration.* — A very common result of in-

flammation of the uterus, especially when confined to its body and cervix, is induration: and before resolving upon the treatment, we should first satisfy ourselves that the induration is the result of chronic inflammation, and not the commencement of malignant disease. Induration, the result of chronic inflammation, may be known by its regular feel, and by the history of the case. In most instances there has been the creamy discharge, or, to use Sir C. M. Clarke's words, "a mixture of starch and water made without heat." Induration, the commencement of malignant disease, is in nodules, the malignant depositions being generally secreted in central patches. It must not, however, be forgotten that malignant disease frequently establishes itself in the mouth or neck of a womb that has become indurated by long-continued chronic inflammation: and although we cannot say that the one is the cause of the other, yet it is very certain that when induration is allowed to go on unheeded, or even when it is stationary in many cases (as in the mamma), malignant disease will be developed at that period of life when the catamenia take their departure.

Sometimes the induration is confined to one limbus of the os uteri: and when this is the case the anterior is more frequently found to be enlarged than the posterior. This, I have no doubt, is caused by its position rendering it more exposed to those causes which induce inflammation. If the induration exist in the anterior lip and cervix, the patient

will have frequent calls to pass her urine; and at first the excretion will flow with difficulty: but if the induration and enlargement exist in the posterior section of the os uteri, difficulty will be produced in defæcation, and tenesmus will result; and it is this distress which sometimes excites the suspicion of stricture of the rectum.

Induration of the os or cervix uteri is occasionally a cause of obstructed labour, preventing its dilatation to a degree sufficient to permit the passage of the child. When this disease exists, the menstrual periods, not unfrequently, are marked by great pain, the leucorrhœal discharge being always thick and creamy for two or three days after the disappearance of the catamenia, and again assuming a thin appearance until the return of the next catamenial flow.

Treatment. — It is seldom necessary in induration of the mouth of the womb to have recourse to bleedings, either local or general: there is not often any increased vascular action to subdue. If, however, such should be present, local depletion must be resorted to until the vascular activity be overcome.* The two great remedies in the removal of this disease are *mercury* and *iodine*, or, what I have found of the greatest use, a combination of both in the form of the protiodide of mercury, given in the same doses, in the same manner, and to the same extent, as in hypertrophy of the womb.

* This is best accomplished by scarifying the os uteri in the way previously recommended.

At the same time the patient's strength should be maintained by mild bitter tonics, as the Calumba, Cascarilla, &c., given two or three times a day. Sarsaparilla is also an useful adjunct to the employment of mercury and iodine. Whilst pursuing this plan of treatment the patient's diet should be of the most bland and unirritating character, while acids, acidulous drinks, salted, dried, and highly-seasoned food ought to be avoided.

The two following cases will show the effect of this plan of treatment in induration when steadily persevered in for some time.

Case XIV. A. B. aged 32, the mother of three children, has been a widow four years. She has had a considerable amount of pain in the lower part of the abdomen, back, and thighs, since the period of her husband's decease. She states that at her menstrual periods the pains are greatly increased; and that a leucorrhœal discharge, from which she is never free, has become more copious, yellower, and thicker in consistency: at the time of menstruation there is pain and difficulty experienced in making water; and the performance of defæcation is also attended with some considerable pain and straining. Examination "per vaginam" detected enlargement and induration of both limbi of the os uteri; the anterior being more decidedly affected than the posterior. This examination was instituted a few days before the expected menstrual return; and there was some heat and tenderness about the mouth of the organ. Free scarification was twice

employed before the return of the secretion, the development of which was not attended with so much pain as upon previous occasions. When this discharge had ceased, the patient commenced the use of the protiodide of mercury, at the same time taking twice a day the Infus. Calumbæ, ℥j. cum Liq. Potass. ♏ xv. The recumbent posture, bland, nutritious diet, occasional laxatives, &c. were also prescribed. This line of treatment was steadily persevered in for some time, until the gums were slightly affected. The effects of the mercury were maintained for a month or five weeks, with the gradual removal of the local induration, and diminution of the distress occasioned by its encroachment upon the neighbouring parts.

Case XV. C. T., aged 29, married, and the mother of three children, complained of central pains, accompanied with a constant desire to pass her urine, &c.; increased upon sexual intercourse, and at her monthly periods. She stated there was constant white leucorrhœal discharge, which acquired a yellowish colour, and became thicker within two or three days of her menstrual return, and maintained the same properties until the expiration of two or three days from the disappearance of the catamenia. Examination "per vaginam" detected the os and cervix uteri to be generally enlarged and indurated in its anterior surface: the enlargement had there proceeded to greater extent than upon the posterior section of the organ: there

was not much pain, tenderness, or heat. The protiodide of mercury was ordered night and morning, and the cold infusion of sarsaparilla in lime-water three times a day. At the appearance of the menstrual periods six leeches were applied to the groin, and warm fomentations ordered to the lower abdomen: these relieved the pain. This line of treatment, persevered in for some time, together with the recumbent posture, a bland diet, &c., was successful, in gradually removing both the enlargement and induration.

IV. *Simple Ulceration.* — This sequent of inflammation of the uterus is a pathological condition that is frequently overlooked from its deep situation, and from the superficial character of the ulceration itself, more especially if a digital examination alone be relied upon: for, however well educated the finger of the obstetric attendant may be, still, from the simple nature of the disease itself, in many cases amounting to a mere abrasion, tactile examination alone is not sufficient to detect its presence; it is only when the speculum is employed that it is discovered. In many cases it resembles a cut surface: in some it is thin, shallow, and not deeper than the mucous membrane; whilst in others, and those of not very unfrequent occurrence, the ulcers will bleed upon the slightest touch. This disease is generally preceded by symptoms of inflammation, marked with shiverings and reaction, with fever, accompanied with a dull pain, sensation of lumbar dragging, and a weight in the anus: the pains are

generally augmented at every menstrual period: there is itching of the external parts, mostly a leucorrhœal discharge, varying in colour and consistence, but usually yellow and streaked with blood. The posterior limbus of the uterus is said to be more prone to ulceration than the anterior: the disease, however, may attack either limbus; it may attack but one, or it may be found in both at the same time. These ulcerations vary in size from a pin's head to a shilling: they are found in all temperaments and at all ages after the establishment of the menses.

Causes. — They appear to be the result of inflammation; in most cases originally produced by cold occurring during menstruation, by the employment of irritating astringent injections, or by the introduction of foreign bodies, as in masturbation.

Diagnosis. — They may be distinguished from syphilitic ulcerations by the regular hard edges of the latter, by the yellow sanious discharge; and in some cases assistance in diagnosis is gained by the "moral character of the female." Its limited extent and superficiality, its slighter constitutional effects, the absence of large bleedings, and the discharge, distinguish it from the "corroding ulcer;" while, from the malignant cancerous ulceration, it may be distinguished by the want of hardness from morbid deposit, by the nature of the pain, and the character of the discharge.

Treatment. — In treating superficial ulcerations of the os and cervix much will depend upon the stage of the disease at which we see our patients: if it be early in the affection, when there are symptoms of inflammation, bleeding must be employed. The local abstraction of blood is generally sufficient; for the cases in which general bloodletting is called for are but very few: cupping on the loins, the application of leeches to the vulvæ or groins, or, what is still to be preferred, to the cervix uteri itself, are in most instances sufficient. With the local abstraction of blood, the hip-bath, on alternate nights, together with the use of emollient tepid injections into the vagina, will be found of service. Of these last, either the Decoct. Papav., the Decoct. Conii., or the Decoct. Malvæ, may be employed. The bowels should be kept free by the occasional use of laxatives; and sedatives should be administered every night at bed-time, to obtain sleep, if the patient be restless, which generally pertains to this affection. For this purpose the preparations of Morphia, the Extract of Conium, Hyoscyamus, or Poppy, may be administered. When the inflammatory symptoms have abated, the Liq. Plumbi Diacet. may be added to the injection. If this, however, be followed by an increase in the quantity of the discharge, if it become more yellow or more sanguinolent, and especially if the central pains become increased, the Liq. P. Diacet. must be omitted, and the anti-inflammatory treatment persevered in for a longer space of time.

When the disease has assumed the chronic form, there are two indications of treatment: 1st, the healing of the ulceration, by the application of local caustic; and, 2d, the improvement of the general health.

To accomplish the first, Dr. Cancoin employed the chloride of zinc; Jobert and Marjolin, the pernitrate of mercury; Delpech, the acid nitrate of mercury; Delmas, a solution of the nitrate of mercury; Dupuytren cauterization: but, in my opinion, there is no remedy better adapted to accomplish this object than the nitrate of silver, applied in substance to the part affected by means of the speculum, the application to be repeated every third or fourth day until the object is gained. 2dly, For the improvement of the general health, tonics, sarsaparilla, the alkalies in bitter infusions, with generous diet, and a residence by the sea-side, are eminently useful. Abstinence from sexual intercourse must be scrupulously observed during the treatment.

Case XVI. H. S. aged 29, unmarried, has been ailing for four or five years. She states that her catamenia are regular as to time, but last upwards of eight days; and that for forty-eight or seventy-two hours during the period the secretion is mixed with coagula.

In the interval there is a profuse discharge, of a thick consistence and yellowish colour, occasionally mixed or streaked with blood: there are constant

central pains, shooting into the groins, especially the left; increased upon her assuming the erect position, and in performing the evacuations of the body. Her appetite is deficient; and from the sufferings she has so long endured she has become very thin and attenuated; her countenance wearing an expression of anxiety, which gives rise to the suspicion of the existence of malignant disease. On examination "per vaginam," the uterus was found enlarged and increased in weight, its neck swollen and hot, and upon the anterior part of its mouth a roughness could be felt. The examining finger, when withdrawn, was smeared with a thick creamy discharge streaked with blood. On using the speculum two superficial ulcerations were detected, with irregular edges, and of a bright-red colour: pressure upon them did not appear greatly to increase their pain: in size they were as large as a sixpence, although not so rounded in form.

She was ordered to be cupped upon the loins to ℥ x., to use tepid injections of the Fotus Conii three times a day, to take Mag. Sulph. ʒss., Mag. Carb. gr. x., Tinc. Hyoscy. ♏ xx. ter in die ex Aq. Menth. Pip. with Extr. Conii gr. v. at bedtime, to observe the recumbent posture, and to abstain from all matters likely to induce mental and bodily anxiety. By the cupping, the pain and congestion were considerably diminished, although the discharge was not materially altered in colour or in quantity. Four leeches were ordered to be applied twice a week to the vagina; the other remedies to be con-

tinued. These were repeated eight times, with considerable benefit; the discharge lessened and became thinner, the pains diminished, the difficulty in passing the urine and motions were greatly ameliorated. By means of the speculum the ulcerations were touched with the stick of nitrate of silver without giving the patient acute pain: this was repeated on four subsequent occasions, the result being their perfect cure.

Case XVII. S. T., aged 27, has been married two years, and since her marriage has never been well. Her catamenia occur every three weeks, and last seven days; while between her menstrual periods there is a constant thick discharge, which is very frequently stained or streaked with blood, especially after sexual intercourse, which is at all times attended with great suffering and distress. She complains of pains in her loins, extending to the thighs and abdomen, loss of appetite, debility, inability to undergo fatigue: her pains are increased by assuming the erect posture, and particularly by walking. Before marriage she was stout and plump; now she is much emaciated, her countenance pale and anxious. The functions of micturition and defæcation are performed with difficulty and pain. Vaginal examination detected the uterus enlarged, but more especially in its posterior section: there were great heat, and some considerable tenderness. By the aid of the speculum, a superficial spot of ulceration was discovered on the anterior limbus,

pressure upon which did not appear greatly to increase her sufferings. Examination "per rectum" found the gut considerably encroached upon by the enlarged womb, so that firm motions could not pass without being flattened. She was ordered strictly to abstain from sexual intercourse, to lose blood from the loins, by cupping to the extent of eight ounces, to inject the tepid decoction of poppies three times a day, to keep her bowels regular with a mixture of the sulphate and carbonate of magnesia dissolved in peppermint-water, and to take eight grains of Dover's Powder every night to obtain sleep. These injunctions were strictly attended to; and at the close of a week vaginal examination did not detect much improvement in the condition of the uterus. She was again cupped to the extent of eight ounces. From this time the discharge became thinner and less in quantity. Leeches were now applied twice a week for a period of five weeks. Two drachms of the Liq. Plumbi Diacet. were added to one pint of the Decoct. Papav.; this was injected (tepid) into the vagina three times a day: but the ulceration did not heal until the Arg. Nit. had been applied to the ulcer four times, at intervals of four days. At the same time her health was improved by the administration of the Infus. Gent. C. with Mag. Sulph. three times a day, and the employment of a mild unstimulating nutritious diet.

d. *Ulceration of the Os and Cervix Uteri in Procidentia.*

When the uterus has been procident for some time without being returned it is constantly exposed to irritation, pressure, and friction. These give rise to inflammation, which generally runs on to ulceration. This may occur in but one patch, or it may take place in several patches at the same time. The ulcerations are usually superficial; at other times they are deep; occasionally, as described by Nauche, they become gangrenous. Rousset and Elmer relate cases in which the organ separated entirely by sloughing; but the patients ultimately recovered. There is a constant discharge in cases of ulcerated procidentia, more or less sanguinolent, and becoming offensive if the greatest attention be not paid to cleanliness. The mucous membrane of the vagina becomes altered; it is covered with a kind of cuticle, and the functions peculiar to mucous membrane are not performed. Patients seldom complain of pain when the ulcerations are touched; although, if there be inflammation, they will not allow the vagina to be pressed without shrinking. The distress attendant upon this form of misplacement is not so great nor so severe as in Prolapsus: in the latter the other pelvic organs are more interfered with; while in the former, although there may be inability to hold the water for a long time, yet but little difficulty is experienced in evacuating the contents of the bowels. There is generally great

flatulence of the abdomen, the bowels lose their tone, the surface of the abdomen is irregular in shape, there is a dragging pain in the back, and an inability to bear much fatigue or exertion.

In healing this form of ulceration, if it be simple and healthy in appearance, the organ should be returned, when the ulceration will speedily heal. If the extruded part be inflamed, as marked by great pain, increased by pressure, its dark red colour, tension, unhealthy appearance of ulcer, &c., a few leeches should be applied; and these may be repeated two or three times, according to circumstances; the part may then be poulticed with white wash or poppy-poultice, until the sore is brought into a healthy state, when it may be returned, and the healing process will rapidly proceed. In cases where the ulcers are indolent, as marked by their colour, indurated edges, &c., I have seen the greatest possible advantage from the application of a poultice made with crumbs of bread and a lotion formed of black wash and Extr. Opii: this seldom fails to alter the character of the ulcer, and cause it to fill up rapidly. The covering the ulcer with a piece of lint soaked in water and oiled silk will be found of service in many cases. If the ulcerations assume a gangrenous appearance (a rare complication) they must be treated upon the common principles of surgery. Sometimes, after the ulcerations have filled up, the granulations will become exuberant and spongy: they are to be treated by the application of the Arg. Nit. or the Cupri. Sulph.

In all cases the organ should be returned into its situation as speedily as possible. While local remedies are employed, the general health must not be disregarded: the bowels should be daily evacuated; and if aperients are required, those of a mild unirritating character must be preferred. Tonics, as the Infus. Gent. C., Calumbæ, Cascarillæ, or the Disulphate of Quinine, &c., should be exhibited.

e. *Enlargement of the Glands of the Os and Cervix.*

In some cases after inflammation of the os and cervix uteri, which has been discovered and removed by proper treatment, patients complain of an intolerable pruritus. This varies much in different cases; in some instances being but slight, in others, amounting almost to nymphomania: there is usually accompanying this slight leucorrhœal discharge, and sometimes redness of the vagina, caused by the friction which the patient has herself employed. Tactile examination fails to detect any thing abnormal in the os uteri, although the finger is not unfrequently stained with blood: but if the speculum be employed we shall see upon the os uteri small granules, not unlike millet-seeds, white and soft, seemingly vesicular, and generally in great numbers.

In treating this affection, if there be local tenderness or inflammation, bloodletting by cupping or leeches will be of service, together with the use of emollient anodyne injections; if there be no ten-

derness, the Ferri. Sulph. ʒj., dissolved in Oj. of water, or the Arg. Nit. gr. v. Aquæ distillat. ℥j. may be used as an injection, at the same time paying attention to the state of the general health.

Case XVIII. Mrs.——, aged 27, a widow, who has had no children, complained of most intolerable itching about the passage; in fact, the distress was so great as to prevent her from mixing in society. She was regular, there was no leucorrhœal discharge, but her linen was occasionally stained with blood, which she thought arose from the abrasion she had herself produced. Upon examination, the vagina and internal parts were inflamed, and the mucous membrane irritated, the os uteri felt lightly granular to the finger, which, when withdrawn, was stained with blood. Upon using the speculum, the os and cervix uteri were found to be covered with small granules, apparently vesicular. The Lot. Arg. Nit., gr. v. to ℥ j., was ordered, and its strength gradually increased to gr. x. to ℥ j., with the effect of removing the unpleasant irritation, and restoring the mouth of the womb to its usual condition.

Case XIX. Jane P—— was under my care three months since with inflammation of the os and cervix; to relieve which, local depletion, anodyne injections, laxatives, and sedatives, at bedtime, were employed, and with success. She now complains of great itching in the passage and external parts.

There is but little discharge, and that of a thin watery character. Upon examination, the external labia and vagina were found to be congested and red, and the lining membrane in many places abraded. The uterus presented nothing abnormal to the touch; but, upon looking at it through the speculum, it was covered with minute vesicles. Her bowels, which were confined, were kept regular by laxatives; and the Lot. Arg. Nit., gr. viij to ℥j., injected three times a day into the vagina, entirely removed the irritation.

PART II.

SPECIFIC DISEASES.

Under the term Specific Diseases I include—

1st. Those tumours of the uterus which are allowed by all writers not to possess any malignancy, as Polypus.

2dly. Fibrous tumours. By some authors, as Dr. Hodgkin, they are stated essentially to "possess the structure of compound adventitious cysts, to which the heterologue formations are to be referred;" but by most obstetric pathologists this character is denied them: and I cannot but subscribe to the opinion, that, if they do possess malignancy, they are entitled to the lowest place in the scale.

3dly. Those tubercles of the uterus which depend upon struma, or are connected with a strumous diathesis; and

4thly. I shall consider those diseases which result from impure sexual congress, as Syphilis and Gonorrhœa Uteri.

A. POLYPUS UTERI.

Polypus uteri is a tumour, generally round or oval, attached to some part of the uterus by a neck or pedicle of smaller size than the body.

Polypi vary in size from that of a pea to that of a child's head: their form is generally oval, or pear-shaped; sometimes they are round like an orange, and occasionally they are met with of the form of a gherkin. When viewed through a speculum their colour is found to vary: sometimes it is white, in other cases it is red; in some the colour is livid, while polypi are occasionally met with whose surface is streaked with blue veins.

Polypi of the womb may be divided into three varieties.

1. The Fibrous. These vary in density: sometimes they are as firm as the hard tumours; occasionally a cavity is found in the centre, which may contain grumous blood, as in the case related by Mr. Langstaff*; or fat and hair, as in the case related by Guiot. The pedicle of this form of poly-

* See Med. Chir. Transactions, vol. xvii. p. 63.

pus also varies considerably in size; in some it is a mere stalk, whilst in others it is thick and fleshy.

2. Another variety of polypus met with is the Cellular: this I believe to be the rarest form of the disease. The tumour is soft, generally lobulated, and rough: it may occur singly, or there may be two or three tumours attached to the uterus at the same time: they are found of a livid colour when viewed through a speculum.

3. The third variety of uterine polypi has been termed Glandulous: it is supposed to be produced by a morbid enlargement of the ovula Nabothi. These tumours may attain the bulk of a hen's egg; but their most common size is that of a walnut; and the pedicle which attaches them to the womb is generally very small, and readily separated. When this polypus is opened it is found to contain either a gelatinous substance or a curdy matter. Uterine polypi are mostly developed in the cellular tissue connecting the muscular and mucous coats; but occasionally the stalk is found imbedded in the muscular fibres forming the middle stratum of the uterine structure. They are covered by the lining membrane of the womb, whether that be mucous membrane, as formerly allowed, or merely epithelic, as stated by some recent physiologists.

Polypi grow from various parts of the uterus; they may be attached to the fundus, to the parietes, or inner surface of the cervix, or they may arise from the anterior or posterior limbus of the os. It

is of great practical importance to distinguish the seat of attachment, particularly before the operation of removal is attempted. When the disease grows from the os uteri, its attachment may readily be made out. When it is appended to the inner surface of the cervix, the examining finger is obstructed when an attempt is made to pass it round the neck of the tumour: this obstruction is caused by the attachment of the tumour itself; while in polypus of the fundus the stalk is completely encircled by the neck of the womb; and if there be room sufficient to admit the fore-finger into the neck of the womb, it may be passed completely round between the cervix of the uterus and the stalk of the polypus. At the same time that these characteristics are observed in polypus of the fundus, the uterus itself is enlarged, its cavity of course is distended, its neck also; and if it has made its way into the vagina, the os uteri must also be expanded, and to a degree sufficient to allow it to pass. In polypus of the neck the uterus preserves more of its normal character and dimensions: its os, however, is generally dilated, and to a degree equal to the size of the foreign body. Not unfrequently we find polypus of the os, especially of the fibrous variety, attached thereto by a broad stalk, scarcely distinguishable from the uterus itself; so that the tumour appears, upon a slight examination, to be a prolongation of the structure of the womb.

Occasionally, polypi are attached to the uterus by two or three stalks. I have at the present time

a female under my care who had a cervical polypus of the fibrous variety: this tumour was attached to the organ by a double stalk, for the removal of which two ligatures were applied.

Subjects.—Persons of sedentary habits, those who reside in low damp situations, women of lymphatic temperament, and about or beyond the middle age, are more liable to the disease.

So far as my experience has gone, the disease has appeared to prevail more in unmarried than in married females, in the proportion of seven to three. If this be the case, it will most completely overthrow the theory of those pathologists who suppose that a clot of fibrine remaining in the uterus after abortion or labour may become organised, and so form a polypus. Malgaigne, in his "Dis. Polypes Uterines*", has given a table of the ages of persons affected with uterine polypus, which he framed from the works of Levret, Leblanc, Roux, Herbiniaux, and others. He has collected fifty-one cases; and the conclusions to which he arrives are, that more women are affected with uterine polypus between the ages of thirty and forty years; amounting to above 50 per cent. of the whole number brought together.

The symptoms that attend the development and growth of uterine polypus are,

1. *Hæmorrhage.*—This, at first, is not unfre-

* Paris, 1833.

quently mistaken for increase of the natural secretion: the monthly periods are prolonged, lasting for seven or ten days; the blood may be fluid or it may be expelled in coagula, which, occasionally, as Dr. Hamilton remarks, "appear to have been moulded upon the tumour itself." * These hæmorrhages may occur repeatedly; but, in many cases, they are irregular both as to the time of their reappearance and the quantity of the blood discharged. As the disease increases, the quantity of blood lost at each return appears to increase also. In most cases the loss of blood is as considerable where the polypus is small as where it is of large size; and not unfrequently there is more loss with a small tumour than with a large one. This fact is an unanswerable negation to those who state that the blood comes from the tumour itself; for if that were the case, the larger the polypus the greater would be the amount of hæmorrhage. Dr. Hamilton, in his "Practical Observations," gives it as his opinion that the bleeding takes place from the uterine vessels; and he explains the cessation of hæmorrhage from the application of a ligature on principles different from those advocated by Dr. Gooch.† He supposes that when the tumour is in a state of growth there is not only a universal flow of blood to the vessels which nourish it, but also a determination to the uterine vessels generally: he, therefore, is of opinion that when by a

* Hamilton's Observations, p. 14. † Diseases of Women.

ligature the connexion between the uterine vessels and polypus is obstructed, there is less necessity for increased vascular supply to the uterus; and hence the cessation of the hæmorrhage. Sometimes, in place of hæmorrhage, there is a fetid purulent discharge *ab initio*. This occurred in one patient whom I saw in a public institution some years ago; and the discharge was so horribly offensive that before examination many supposed she was labouring under malignant disease. During the intervals of hæmorrhage there is usually more or less discharge; in some cases of a watery nature, in others it is leucorrhœal; in some an increase of the natural mucus, whilst in others the fluid is ill-coloured and fetid.

As the bleeding proceeds, the constitution is found to display great sympathy; the surface of the body becomes bleached; the patient complains of a weight upon the top of the head; there is noise in the ears compared to the ringing of bells, the singing of a kettle, or the rushing of water: but almost all these are the sequences of the loss of blood. A patient so affected is subject to frequent vomiting, depending upon the loss of blood, or upon the uterine efforts which are excited to expel the polypus, or upon the dragging down of the tumour itself. Co-added to these are palpitation, emaciation, œdema, &c., all of which are frequently associated with anæmia. The patient complains of central pains; there is a weight in the

pelvis, or a bearing down; sometimes tenesmus, and difficulty in micturition.

The symptoms already adduced should cause us to institute a vaginal examination, when possibly the tumour may be discovered in one of the situations especially referred to.

Uterine polypi are said to be at all times insensible. This does not accord with my view of the subject, for I have found as many uterine polypi which are sensible as insensible.* It is right to bear this in mind, especially as the want of sensibility is by many regarded as a valuable means of diagnosis. When the polypus has attained a large size, its mechanical pressure will produce symptoms altogether caused by its encroachment upon the neighbouring viscera.

It is of the utmost importance not to commit any error in diagnosticating this disease; and in some cases this requires the utmost caution and care. If the tumour be still in the cavity of the womb, the diagnosis will be more difficult.

It is to be distinguished,

1. From Pregnancy. When the polypus has been attached to the fundus of the uterus, and before it has passed out of the cavity, it has been mistaken for early gestation, in consequence of the sensation of weight in the region of the pelvis, and the enlargement of the hypogastrium. In pregnancy, however, there is not that sensation of weight until

* Cases by Dr. Johnson. Dublin Hospital Reports, vol. iii.

the uterus has obtained a very considerable size. Again, in pregnancy, there is usually disappearance of the catamenia. In polypus there are repeated irregular hæmorrhages; in pregnancy there will be stethoscopic signs of utero-gestation, while in polypus they will be absent. But it cannot be denied, that the diagnosis must occasionally be difficult. Dr. Merriman, in his valuable "Synopsis," p. 235., relates a case attended by a well-informed pupil of the Middlesex Hospital, where the doctor himself, although possessing all the accuracy of tact which a long experience had given him, supposed he was feeling the head of a premature fœtus inclosed in the membranes, until he ascertained, by a more careful examination, that it was a polypous tumour, depending from the os uteri by a pedicle, about the thickness of a thumb. A similar case is related by Smellie.

2. For Procidentia or Prolapsus Uteri, especially when this organ has been greatly congested or diseased, polypus has been mistaken, and pessaries have been applied to maintain in its situation the so-called misplaced viscus. In most cases the shortness of the vaginal cul-de-sac surrounding the cervix uteri, together with the orifice at the lower part of the tumour, will be sufficient to correct the error; but in some instances, where the uterus is elongated, where there is projection of the cervix, where the os uteri is effaced, where there is swelling of the limbi, difficulty may occur in drawing a correct diagnosis. On the other hand, some polypi

are strongly marked and indented on their lowest surface, particularly those to which a pessary has been applied; and such an indentation, without great care, might be mistaken for an os uteri. In forming our diagnosis, the finger must be carefully passed up as high as possible around the tumour; and it will there find either the cul-de-sac encircling the cervix uteri or the os uteri itself. It may be thin, distended, and permitting the passage of the polypoid tumour, or it may detect the tumour itself growing from one of the limbi of the os.

3. Polypus is, however, much more likely to be confounded with Inversio Uteri. Many such cases are related by Levret.* The history of the case, its origin at the time of delivery, together with the state of the vagina itself, the presence of the os uteri, &c., will assist us in forming our diagnosis. In those cases where the inversion is of a chronic character, more difficulty is experienced in forming our opinion. Careful examination made by the finger or catheter will discover that the inverted uterus is encircled at its neck with a cul-de-sac of little or no depth; while in polypus the instrument may be carried some distance along its pedicle, beyond the os uteri, through which it had passed. There is more pain and tenderness in the inverted womb than in polypus, which in some cases is but little sensible when stretched or pricked, although acutely sensible in others. There is a preparation

* Levret, de l'Acad. de Chir. tom. iii.

in the museum of Guy's Hospital in which the polypus has produced by its weight Inversio Uteri.

4. Scirrhous enlargement of the os uteri has been mistaken for polypus. Careful examination with the finger and speculum must detect the difference: those tumours are not pedunculated, neither are they encircled by the os uteri, as in polypus. The symptoms which usually attend the development of Scirrhus are also wanting as lancinating pains, sero-sanguineous discharges, &c.

5. The "Vivaces" of Levret are much more likely to be mistaken for polypus. They are fungous excrescences growing from an ulcerated surface, and covered by no membrane; their texture is more soft than polypus; they seldom descend into the vagina, having no stalk; and they can easily be felt within the orifice of the os uteri.

6. The cauliflower excrescence of Sir C. M. Clarke must not be mistaken for polypus: the former is covered by a fine transparent membrane, is of a bright flesh-colour, insensible, mostly attached to the cervix uteri, grows from a broad base, is attended by a watery discharge and frequent hæmorrhage. After death it shrinks almost to nothing. It destroys life, like polypus, by the profuse discharge and frequent hæmorrhages. Polypus, on the other hand, is covered by the mucous membrane, is of a mottled colour, is also in many cases insensible, grows from a narrow stalk, is attended with watery discharges, and is detected after death, although smaller than during life.

7. Fungoid polypoid growths are frequently found developed during the progress of cancer: they may be mistaken for polypus, unless due care is taken in the examination. I have frequently known such cases sent to public institutions as cases of polypus for operation; but, in addition to the symptoms of malignant disease which are present, there is generally a greater or less degree of induration in the surrounding tissues.

8. An elytrocele has been confounded with polypus; but its softness, the facility of its reduction, and its point of origin, will, I think, prevent a careful practitioner from committing such an error.

Lastly. Encysted tumours of the vagina, and tumours occurring between the vagina and rectum, are to be distinguished from polypus by the breadth of their base, and the adhesion of the base to some other part than the uterus or its orifice.

Prognosis.— The hæmorrhages to which polypus gives rise are generally of an alarming character, and attended with great exhaustion and depression of the vital powers. The constitution may indeed be fatally damaged before the polypus has passed through the os uteri, or before the latter is sufficiently open to allow of the performance of an operation for its removal; though polypus of the fundus is in the majority of cases more serious than polypus of the cervix or os uteri.

Inflammation occasionally occurs in a polypus: this may terminate in adhesion. Some years since I saw a patient, about the age of forty, whose vagina

and os externum were distended by a fleshy polypus, which was adherent throughout three fourths of its circumference to the walls of the vagina. Sometimes inflammation of the polypus terminates in suppuration: when this occurs, the disease generally spreads to the uterus, and is attended by symptoms of high constitutional excitement, occasionally followed by death. Sometimes the surface of a polypus is ulcerated: this I have especially noticed in those cases where the disease has been mistaken for prolapsus or procidentia, and a pessary or some artificial support has been applied. The discharge which takes place is of a fetid character, and is attended with cachectic symptoms. Polypi sometimes separate by the breaking of the pedicle, when it is thin, or by inflammation of the pedicle, followed by ulceration, suppuration, or gangrene.

Treatment. — After having determined the existence of a polypus, we should ascertain whether we are justified in at once attempting its removal. If the tumour grow from the cervix or os uteri, or if it grow from the fundus, and have passed through the os, or if the latter be so distended or dilatable, the operation may be performed. But if the os uteri be closed, and the tumour can only be just felt, our best endeavours must be directed to repress the fearful hæmorrhages, and to maintain the constitutional powers which each successive attack of bleeding is still further reducing. With this view we should have recourse to the internal use

of astringent medicines, and at the same time employ cold astringent injections. When the hæmorrhage is very profuse, great benefit will accrue from plugging the vagina. If this operation be performed, the practitioner should carefully look to the state of the bladder, as the pressure of the tampon generally prevents the proper evacuation of that viscus. Food of the most nutritious quality must be allowed in small quantities at frequently-repeated intervals. In some cases, when the os uteri is beginning to be distended by the polypoid growth, I have known considerable advantage accrue from the exhibition of the ergot; the tumour has been expelled through the os uteri, and placed under circumstances fit for the operation. I have known such a result occur from an attack of vomiting, although I am not inclined to recommend the exhibition of an emetic for such a purpose. Some writers, as Dupuytren, recommend the cervix to be incised where there is a large tumour and great difficulty in its expulsion. I have never met with a case requiring such an operation, although I have witnessed the propulsion of some very large polypi. The hæmorrhage which accompanies the disease generally relaxes the fibres of the uterus sufficiently to permit the transmission of the largest tumours. The free application of belladonna has been recommended by Boivin and Dugès, although, in my opinion, such a remedy is never necessary.

In removing polypi, four methods of operation are recommended: — 1. Torsion; 2. The operation

by ligature; 3. The operation by excision; and 4. The operation by the actual cautery.

1. *Removal by torsion.*—As the natural efforts have been sufficient in some instances to effect the separation of polypus (see Levret, Clarke, Ingleby, &c.), and as they have occasionally been separated by forcing down by the ergot and by various concussions of the body, it was expected that the operation of twisting would of itself be sufficient to effect the separation. This operation is readily performed by raising the polypus with the finger and thumb, or with a suitable pair of forceps, and twisting it gently round until the stalk breaks; it is then to be withdrawn. If the stalk is found to be too thick, or if it will not yield, one of the other methods of removal must be had recourse to. Polypi with a slender stem, especially those of the cellular kind, are best adapted for this method of removal. Its recommendations are, the absence of hæmorrhage and discharge, and the freedom from that caution in moving the body, so necessary where the canula has been employed.

2. *Ligature.* — The removal by ligature in the majority of cases is the preferable operation; by its employment, all chance of hæmorrhage is removed: but although in by far the greater number of cases the stalk soon separates, yet in some few it has evinced no such disposition; and in one case on record the irritation depending upon the discharge taking place from the semi-putrescent mass was attended with very serious consequences.

Another advantage of the ligature, as demonstrated by Dr. Gooch, is this: It may be applied upon any part of the stalk; for, in accordance with a law of nature, an effort is made for its separation from the living parts; and the part which remains, instead of being prolonged into a fresh polypus, sloughs away. If the stalk be very thick, we may follow the advice of Levret, who recommends the use of two ligatures instead of one, by passing a needle with a double ligature through the centre of the stalk, and then cutting away the needle; the two halves of the stalk will each be provided with a separate ligature. Obstetric writers recommend various kinds of ligature. Dr. Blundell uses silk wrapped around with fine wire; Sir C. M. Clarke waxed silk; Dr. Hamilton silver wire; others catgut. But no ligature, in my opinion, is preferable to whipcord. It has been shown by Mr. Walne, in the *Medical Gazette* for July, 1836, that whipcord, when moistened, increases in thickness, but diminishes in length; therefore such a ligature, after its application, and when bathed in the discharges, will tighten itself very considerably.

Various canulæ are also employed: the one in common use is that improved by Levret, although not invented by him, consisting of two tubes soldered together. The canula of Levret was modified by Herbiniaux, who rendered the tubes moveable or fixed upon each other, so that with one of them the noose was passed around the pedicle in order to tie it. M. Paul Dubois proposed a specu-

lum provided with a double sheath, which seizes the polypus, and applies the ligatures to its pedicle; but this instrument could not be conveyed into the uterus even when that organ had been brought downwards by pressure upon the hypogastrium, and could besides only grasp excrescences. (See "Boivin and Dugès' Trans." p. 214.) Dr. Blundell used in his lectures to recommend Hunter's polypus-needle; while Dr. Burns, at p. 118. of his "Midwifery," speaks of the difficulty he has occasionally experienced in applying a ligature by means of Levret's double canula; and recommends the employment of a double canula, the tubes being made to separate and unite at pleasure by means of a connecting base, or third piece, which may be adapted to them like a sheath. Dr. Gooch, referring to the defects of Niessen's canula, described in his work, "De Polypis Uteri et Vaginæ novoque ad eorum Ligaturam Instrumento *," describes his own instrument, and his method of using it. The instrument that I employ is the one first used at Guy's Hospital by Dr. Ashwell; it consists of Gooch's canula, to the outer end of which a rack has been superadded, so that the ligature may be gradually tightened from time to time by turning the rack; instead of unwrapping the end of the ligature and drawing it tighter, as was necessary in the original instrument.

In applying the ligature, the greatest care must be taken that a portion of the os uteri is not in-

* Göttingen, 1785.

cluded in the loop, as this occasions great suffering. In using the instrument, the patient should be placed on her side or back, and the ligature carefully applied in the following manner: — The tubes, placed side by side, guided by the finger, are to be passed up the vagina, along the polypus, till their upper ends reach that part of the stalk around which the ligature is to be placed; the tubes are then to be separated; and while one is maintained fixed, the other is to be passed quite round the polypus till it arrives again at its fellow tube and touches it. By these means the stalk will be encircled by a loop of ligature.

The two tubes are now to be joined so as to make them form one instrument; the cord is then to be fastened, and by turning the rack may be tightened. If possible the ligature should be tightened daily; for the sooner the polypus is removed the better. The vagina should be syringed twice a day with the Infus. Anthemidis, to which a little spirit of wine or camphor has been added. After an interval, varying in different cases, the polypus separates; the length of time will depend upon the thickness of the stalk. In some cases it will fall out of the vagina, in others it will require assistance, either by the finger of the attendant; or, when the polypus is very large, I have known the use of the hook or forceps necessary. After the ligature has been applied, the patient must be cautioned to keep on her side; she must be careful not to displace the instrument in passing her water;

and her bowels should be kept free by the employment of laxative enemata. Internal medicines are seldom required; but if there be much restlessness or irritability, an anodyne at night will be sufficient. After the separation of the tumour vaginal injections of an unirritating nature should be persevered in for some time. Mild tonics, generous diet, country air, or a residence by the sea-side, will in most cases succeed in restoring the constitutional strength.

When polypus occurs at the middle period of life, when the discharges, both sanguineous and serous, have been profuse, and when the constitutional powers have been very much weakened, I have known the application of the ligature with the separation of the tumour, and the consequent stoppage of all the discharge, followed by a plethoric condition of the system, which has produced apoplexy and paralysis. In most cases occurring at this period of life, due care should be taken not to increase the amount of circulating fluid to too great a degree; at the same time taking heed that the secretions are kept free, and the patient takes a daily amount of exercise.

3. *Excision.*—The operation of removal by excision has many supporters of great talent; amongst others, Osiander, Simpson, Siebold, Dupuytren, Arnott, Brodie, &c. Dupuytren is said to have removed two hundred polypi in the course of his practice, and in two instances only did hæmorrhage occur. Velpeau has excised polypi eight times

without hæmorrhage. So far as I know, the occurrence of hæmorrhage is the only objection to the operation; but in most cases this may be counteracted by plugging the vagina. The operation is in itself exceedingly simple. The patient should be placed upon her back or side, and the polypus, seized with a hook or pair of forceps, is to be drawn down without the external parts: when brought to view it is to be divided by the stroke of a bistoury, or by means of a pair of scissors. If the vaginal orifice be small, so that the tumour cannot be protruded, we should divide it from the stem by a pair of blunt-pointed scissors. In some cases the polypus is situated externally, whilst in others the natural efforts of the patient, or the previous exhibition of the ergot, are sufficient to cause its expulsion.

If the stem of the polypus pulsate it will be as well to tie it with a ligature, and afterwards excise below the ligature.

4. *Actual Cautery.*—This is a method of operation that demands but little consideration, as it is one not practised in this country, neither is it likely to be employed. Siebold, in his "Frauenzimmerkrankheiten," vol. i. p. 709, relates a case in which the operation succeeded to perfection.

Case XIX. *Cellular Polypus. Operation by torsion.*—S. G., aged 27, married, has suffered for some time from frequent attacks of hæmorrhage: the discharge has frequently lasted for a week or ten days, and has generally been accompanied by coagula:

between the periods of hæmorrhage there has been a continual serous drain. These repeated and continued losses have very much deranged her general health. She complains of loss of appetite, noise and pains in the head, especially near the eyebrows. On May 7th, 1843, I made an examination, and discovered a small cellular polypus growing from the anterior lip of the os uteri: it was insensible, and bled freely during the examination: when viewed through the speculum it was seen of a violet colour, and its connexion with the uterus was but slight. On the 18th I removed it by the operation of torsion, using a pair of long-curved forceps. The woman recovered quickly.

Case XX. *Fibrous Polypus. Pregnancy.* — M. A. T., aged 35, married about six months and a half, and about four months advanced in pregnancy, has been subject to irregular discharges of blood from the uterus for nearly twelve months. Of late these attacks have been more frequent, and have lasted for more than nine or ten days. She states that she is seldom free from some discharge; for when it is not sanguineous it is colourless or green. Her general health has become very much deteriorated, her legs are œdematous, her breathing is short and hurried, there is palpitation, and, in short, all the symptoms of anæmia. Occasionally she suffers from pain in the back and loins, coursing down the thighs. Her symptoms excited the suspicion of malignant disease; but upon examin-

ation a firm insensible polypus was found growing from the os uteri: it was of the size of a hen's egg, and its stalk was as large as a thumb. The uterus itself was healthy, and distended to the size of four months' gestation. A ligature was placed around the tumour by means of Gooch's canula, and in seven days the canula with the polypus came away. This woman did well; her health rapidly improved; she went to the end of her pregnancy, and was safely delivered of a living child.

Although I was fully aware that polypi, when combined with pregnancy, grow more rapidly than polypi which are attached to the unimpregnated uterus, and that (as will be seen hereafter) polypi so complicated very considerably diminish after delivery, yet I did not think it justifiable to risk the patient's safety by allowing any more time to be lost before the removal of the growth. The anæmiated condition of the patient, the little probability of her being able to bear many more losses of blood, the length of time that had to elapse before the completion of her pregnancy, the rapid growth of the tumour, the obstruction that it would necessarily offer to the labour, its attachment to the os uteri only, and the advanced age of the patient, were the chief reasons that prompted me at once to proceed to its removal: at the same time I felt that I was running some risk in operating upon or so near to the pregnant uterus; but of the two evils, I thought immediate operation preferable; and the result of the case, in my opinion, justified the means adopted.

Case XXI. *Large soft Polypus. Ligature. Hæmorrhage.* — C. H., aged 41, a married woman with four children, in her first confinement, seventeen years since, had adherent placenta; and her last, ten years ago, was followed by an attack of inflammation. With these exceptions, although not a strong woman, she has in general enjoyed good health, until about two and a half years since, when she first suffered from menorrhagia, the discharge continuing for two or three weeks at a time, and occasionally clotted and membranous, but not accompanied by any particular pain. This continued for the space of a year, gradually increasing, and for the last year and a half without intermission, increasing at intervals, but attended by no pain except in the loins after any exertion, headache, and other symptoms of anæmia. Of late she has become much emaciated, her countenance is very pale and sallow, her tongue clean and moist, pulse feeble, appetite good, but she suffers very considerably from thirst. A vaginal examination detected a large soft polypus filling the upper part of the canal, descending through the os uteri, and apparently attached to the anterior part of the body of the uterus. On May 2d the polypus was tied by means of the canula; the ligature, when drawn tight, cut into the structure of the growth, which was very soft; the consequent bleeding was very profuse, and caused great exhaustion. The ligature at first was tightened every other day, subsequently every day; and on the seventh day the

tumour came away, several violent pains preceding the expulsion.

In very soft polypi, the tightening of the ligature is very apt to be accompanied with bleeding: and in my opinion it is better to strangulate them very gradually; for in some women, who have been greatly reduced by the long continuance of the disease, the profuse loss of blood from this cause has led to a fatal termination.

Case XXII. *Polypus attached to the Os Uteri. Discharge copious, purulent, and fœtid.* — J. M., aged 46, a widow, has had one child, who is alive, and 19 years of age. Five years since her menstrual discharges increased in quantity, lasted upwards of a week, and were generally mixed with coagula. Medical assistance was resorted to, with the effect of diminishing their quantity, and improving her general health. In a twelvemonth from this time this patient had almost constant discharges, either sanguineous or watery; and it was the opinion of a medical man whom she consulted, that she was labouring under cancer of the womb. She continued in this state until within six months, when, getting her feet very wet, she was seized with rigors, fever, pain and tenderness in the abdomen, &c., which were relieved by leeches, fomentations, &c. She states that she took pills which made her mouth sore. During the continuance of the pain the discharge stopped; but as she began to convalesce it returned, but was offensive in smell, and

yellow in colour. This has continued up to the present time. She reports that sometimes the discharge is greenish; it is copious, most horribly offensive, scenting the apartment. She complains of dragging pains in the back and loins, tenesmus, difficulty in micturition. There are no lancinating pains in the groins or thighs; her countenance is pale and bloodless, her legs and feet are anasarcous; she has violent palpitation of the heart, increased upon the slightest exertion; her pulse is rapid and hæmorrhagic. Upon making a vaginal examination, a large polypoid tumour was found attached to the anterior limbus of the os uteri by a pretty firm and thick stalk. The polypus was sensible when touched; its surface was rough, and to the finger it gave somewhat the sensation of a nutmeg-grater.

The cervix and posterior lip of the os uteri appeared to be natural; no hardness nor disease could be detected by the finger, which, when withdrawn, was smeared with a purulent-looking yellow discharge, having a most offensive odour.

As nothing appeared to contra-indicate the removal of this tumour, it was tied by means of Gooch's canula; and in seven days it separated; and when examined, it appeared to be a firm polypus, which had been attacked with inflammation, the result of which had no doubt been the effusion of lymph, for the outer rough granular coat could be pulled off, although with difficulty. After the polypus was tied, the yellow fœtid secretion was stopped, and its place was supplied by a brownish

discharge, the usual sequent of the application and tightening of the ligature. After the operation the patient gradually, but perfectly, recovered her health; and, at the same time, repeated vaginal examination proved that the uterus itself was free from any malignant disease. She is at the present time alive, and in the enjoyment of good health.

a. *Polypus Uteri combined with Pregnancy.*

Occasionally we meet with instances of polypus uteri associated with pregnancy. The prognosis of this complication must at all times be doubtful: for, in the first place, it renders the continuance of utero-gestation a matter of question. 2dly. It may be so large, and offer so serious an obstacle to labour, as to demand instant removal. 3rdly. By preventing the subsequent contraction of the womb, it may give rise to dangerous and even fatal flooding; while, lastly, it may occasion inflammation of the womb. Many cases, proving the truth of these statements, are scattered through the various medical journals.

If the polypus be detected in the earlier months of utero-gestation, or if its presence be not ascertained until the completion of pregnancy, or during the progress of labour, or especially if delivery be prevented by its size, it must be removed; but it is right to delay the separation of the tumour until the parts have had time to recover themselves, provided the labour can be completed without the removal of the foreign body. (See Ramsbotham, jun.,

Davis, Lever, in Guy's Hospital Reports, vol. vii.) Not unfrequently by waiting we shall find the tumour lessen in consequence of the supply of blood being less than during the period of utero-gestation. In cases where the removal is absolutely necessary to effect delivery the two operations of ligature and excision should be combined. In some cases of labour impeded by polypus a skilful operator may, by the assistance of the forceps or vectis, succeed in delivering the child alive; but, in my opinion, when the tumour is too large to admit of delivery by the embryospastic instruments, it is a better practice to tie a ligature if possible around the neck of the tumour, and excise it below the ligature than to perform the operation of embryotomy.

Case XXIII. I was consulted by a lady who had previously borne children (her last being three years of age), under the following circumstances: She stated her labours had been quick and natural, and that she had nursed her youngest child for ten months. After weaning it, her catamenia returned at regular intervals; and during the last twelve months she had remarked that they continued for a longer period than formerly, and towards their close were generally tinged with blood, as indicated by the presence of coagula. For six months there had often been serous discharge from the vagina, more especially before and after the return of the menses. Three months before my visit, she expected she was pregnant, having all the signs of

early gestation which had marked her previous pregnancies. As she had once miscarried, she thought she was then suffering from the premonitory symptoms of abortion, as indicated by the discharge of blood, attended with pain in the back, stomach, and thighs. The areolæ around the nipples were enlarged and dark, and the glandulæ elevated. Rest, acids, anodynes, cooling drinks, and those measures calculated to prevent abortion, were prescribed with the effect of restraining the discharge and relieving the pains. For seven weeks from this time no discharge took place, her health became much improved, and the only circumstance she complained of was, that the symptoms of her pregnancy kept her in a state of great suspense, as she was confident she had experienced all those sensations she had undergone at the early period of her former pregnancies; while at the same time, since the occurrence of the hæmorrhage, no other signs of that condition had developed themselves, although there had been no return of the catamenia.

I was hastily called to her one morning, and found she had passed a very restless night from pain in the back and loins, extending to the abdomen and thighs: there had been a discharge of blood, at first sparing, but which for the last two or three hours had become profuse; her face was pallid, her pulse small and quick, her extremities cold, her countenance anxious; and she expressed her fears respecting the result. Having administered to her a few drops of Sp. Am. Comp. in water,

I proceeded to institute an examination, when I found growing from the posterior and right side of the cervix uteri a polypus of moderate size, with a slender soft stalk; the uterus was large, and it was low down in the pelvis, which was of capacious dimensions. As the patient's strength was greatly reduced, and as bleeding was still going on, I determined to attempt the removal of the tumour by torsion; that operation, in my opinion, being preferable, by reason of its preventing any loss of blood, and subsequent irritation, which the ligature might probably occasion. To accomplish this, I grasped the tumour with the finger and thumb of the left hand, and having twisted the tumour round a few times, it separated, and proved to be a polypus of the cellular kind. On carefully examining the cervix uteri, the seat of the attachment could readily be felt; and I also found that there was still something within the uterine cavity, its presenting portion giving to my finger the sensation of a bag of membranes. The pains continued, although the discharge was not profuse; and on making a second examination some body was found protruding through the os uteri, which at length was expelled into the vagina, from which I removed it. It proved to be an ovum, containing a fœtus of about three months' development. This patient's convalescence took place without any untoward symptoms.

This case is interesting from the length of time the ovum was retained in the uterine cavity (seven

weeks). After the patient lost all the symptoms of pregnancy her mammæ, which had been enlarged and painful, at the time of her delivery were shrunken and small, and the areolæ, which had been dark and large, were faded. Most probably the polypus was the cause of the incarceration of the ovum. The condition of the patient, the character of the polypus itself, and the result, in my opinion, justify the performance of the operation at the time; and I think the method of operating was the best that could be adopted under all the circumstances of the case.

Case XXIV. In May, 1819, I was requested to see a female who had just been delivered, and in whom there was a polypus of the size of a duck's egg lying in the vagina near the external parts. This female had been confined at the seven months, the nates of the child had presented, and the tumour had not caused any great obstruction to the labour, the patient's pelvis being remarkably large. My opinion was desired as to the propriety of removing the tumour at once. To this plan of treatment I objected, for the following reasons: I considered that the polypus, being nourished by the same vessels as the uterus, would now have a smaller supply according as the supply to the uterus became smaller, and consequently it would diminish in the same proportion; I also thought it better to wait, if possible, until the patient had recovered from her puerperal state, as during that

condition she was most likely to suffer from any additional irritation caused in the womb or its vicinity. This advice was acted on; and it was not until seven weeks from the period of her delivery that hæmorrhage occurred, which determined us to apply a ligature around the polypus. In six days it sloughed off, and the patient ultimately did well.

Case XXV. A lady, a friend of mine, was attended by a practitioner residing in the suburbs of London with her fifth child; her labour was lingering, and throughout its whole course there was more or less flooding. She had not had a child for some years. After the expulsion of the placenta the hæmorrhage still continued, although the uterus remained firmly contracted. A careful examination detected a small polypus within the os uteri; to remove which several unsuccessful attempts were made. On the third day acute metritis supervened, and in fifty hours from the attack the patient died. No examination of the body was permitted.

B. HARD, FLESHY, OR FIBROUS TUMOURS OF THE UTERUS.

Under this head I include those tumours of the uterus for the most part non-pedunculated, which are either non-malignant, or, if malignant, possess that characteristic in a very low degree.

Various kinds of these tumours are met with in

practice: sometimes, when cut into, they exhibit a fleshy consistence, interlaced here and there with fibrous lines. These are the true fleshy tubercles of Hunter and Baillie, and are the softest of the kind. Sometimes they present a section very similar to that of the uterus itself, although redder and firmer. Those most frequently met with are hard, circumscribed, indolent bodies, of a yellowish or ashy-grey colour, formed of fibres of tough filamentous laminæ, arranged in concentric layers and fasciculi; and when divided with a knife, present a laminated or radiated semi-cartilaginous character. They sometimes are soft in one part, hard in another; and this is occasioned by certain cavities filled with fluids of different densities, or, in a few instances, solid bodies have been found to occupy the centre. Sometimes the tumours are changed into a cartilaginous mass, in which calcareous deposition takes place; these depositions, consisting of the carbonate, sulphate, and phosphate of lime, occasionally becoming so hard as to take a polish. Sometimes the tumour appears to be made up of a number of smaller tumours, giving to it a granular appearance.

Occasionally a large vessel is found to traverse the surface of the tumour, but in most cases no vessels are visible. If fine vermilion injection be forced into the vessels of an uterus affected with this disease, although every part of the uterine tissue will be reddened, no injection will be found to have passed into the morbid structure. These

tumours are mostly found imbedded in the cellular tissue beneath the serous or peritoneal membrane; sometimes they are found between the layers of the proper tissue of the uterus; and occasionally, but most rarely, they are generated beneath the mucous lining. When a tumour is seated in this latter situation it mostly gives rise to hæmorrhage of an alarming character. Every part of the organ is liable to the development of these tumours, viz., the fundus, sides, body, or cervix; but I have more frequently found them occupying the fundus and body than the side or cervix. Their form is found to vary; they may be round, angular, conical, or even lobulated: in some cases they are pyriform, projecting through the os uteri, and forming a variety of uterine polypi. Their shape is in a great measure influenced by their situation and the seat of their development. They are found of all sizes, from that of a pear to that of the pregnant womb. One case is on record which weighed forty pounds: I have myself seen one which weighed upwards of twenty pounds. Their communication with the uterus is generally firm and broad; but cases are now and then met with where the connecting tissue is a narrow band or a lax cellular tissue, permitting the tumour to fall over to that side upon which the patient may lie. The cause of the formation of these tumours is not known. I have had some patients attribute them to a blow or kick. By some writers they are supposed to be a kind of concretion around a nucleus of coagulated blood or pus. Un-

married and sterile women are more liable to their development than those who have borne children, although we occasionally see pregnancy and these tumours associated.

The symptoms attending the formation of these tumours are by no means prominent or well marked. Frequently they are not discovered until they have acquired a large size, or by their weight interfere with the due performance of some of the functions. The symptoms, therefore, are chiefly mechanical; they are central pains, weight in the pelvis, a sensation of bearing down or dragging, aching in the loins, &c. If the tumour be situated in front there is difficulty in voiding the urine; or the bladder may be so encroached upon as not to admit of being distended, therefore the patient will have repeated calls to pass her water. If the tumour be seated in the posterior part of the uterus, it may cause inconvenient pressure on the rectum, occasioning tenesmus, hæmorrhoids, &c. When attached to the fundus, retroversion of the womb is frequently produced, so that both passages are obstructed at the same time. I once saw the examination of a woman who had died with symptoms of coma, in which the obstruction had been so great that the bladder, ureters, and pelves of the kidneys were enormously distended, while the bowels were loaded with masses of hard fœculent matter. If the tumour be seated on either side, patients usually complain of cramps, numbness and coldness of the lower extremities. In some patients there is amenorrhœa;

in others, especially those where the tumour becomes pedunculated, there is profuse hæmorrhagic discharge: in all cases, so far as my experience has gone, when the tumour is seated between the mucous membrane and the proper tissue of the uterus, there will be repeated hæmorrhages: these will produce pallor of the countenance, dropsical extremities, and, in fact, all the symptoms marking anæmia.

In some cases there is enlargement of the mammæ. This enlargement may be permanent, or it may occur periodically, and is more frequently removed by the occurrence of hæmorrhage. If a patient present herself to our notice, complaining of a tumour in the lower abdomen, unaccompanied by pain, or associated with cramp or numbness of one or both legs; if there be irregular action of her bowels, accompanied with tenesmus, bearing down, and hæmorrhoids; if there be difficulty in holding or evacuating her urine, we may suspect the presence of hard tumour. A careful examination should then be made by the physician. He should place the patient on her back, with her abdominal muscles relaxed; the boundaries of the tumour should be defined, its mobility determined; he should ascertain whether it readily fall to the prone side, or whether it maintain its position. Passing one or more fingers into the vagina, he should ascertain whether the os uteri be propelled downwards by the pressure of the hand upon the abdominal parietes; whether, by pushing up the os

uteri, he succeed in raising the abdominal tumour; and he should determine its solidity. This investigation should also be verified by a careful examination made "per rectum."

Diagnosis. — There are several conditions of the womb which may be mistaken for hard or fibrous tumour, and the first is Pregnancy. The mammary sympathies, to which I have referred, sometimes lead to this error; but the dark areolæ, the enlarged glandulæ, the stethoscopic signs, the fœtal movements, and the other symptoms, will, I think, in most cases, prevent us from falling into this error. It must, however, be borne in mind, that women affected with hard tumour of the uterus do occasionally become pregnant. Many such cases are on record.

2. *Congestion and induration* of the womb is more generally, however, mistaken for hard tumour. In congestion the swelling is more general; there is pain, increase of heat, mostly menorrhagia, with intermediate leucorrhœal discharge, or there may be dysmenorrhœa, accompanied with the evacuation of small dark coagula. In hard tumour the swelling is more defined, not painful on examination; it is more hard, and the healthy structure of the uterus may often be felt around it.

3. From scirrhus it may be known by the tumour being, for the most part, seated in the os and cervix, by the general surrounding induration, lancinating pains extending to the back, groins, and thighs, by the paroxysmic attacks of pain, hæ-

morrhage, and by the uterus becoming immoveable; and, as the disease advances, by the ulceration which takes place, indicated by hæmorrhage and the other peculiar discharges, by the constitutional symptoms, the malignant aspect of the countenance, wasting, &c.

4. Hard tumour of the uterus is very liable to be mistaken for polypus uteri, especially when the latter is in the cavity of the organ; but as the polypus increases, it will distend the cervix, and ultimately escaping through the os uteri, declare its nature.

I have already stated that some of these tumours, which are seated beneath the mucous membrane, occasionally become pedunculated, and form a variety of uterine polypi. Such cases are generally longer in developing their nature than simple polypi: perhaps the bleeding attending their formation and development is greater, and consequently the constitutional symptoms are more marked and urgent.

5. From ovarian disease, hard tumour may be known by the history of the case. The swelling in the former commences upon one side at the lower abdomen, whilst in the latter disease it begins in the median line. In ovarian tumour there is generally less hardness, the tumour is more moveable, and the constitutional irritation perhaps is greater than in hard tumour, which is for the most part more fixed, harder, and marked by less constitutional sympathy. When an examination is made by the vagina in ovarian disease, the enlarged ovary

may generally be felt by the vagina on that side of the os uteri corresponding to the side of the pelvis from which it has sprung. In this disease, also, the os uteri is inclined towards the affected side, while the fundus is forced to the opposite side. With the left finger in the vagina on the os uteri, and the right hand upon the abdomen, we shall not, by depressing the tumour, cause a corresponding depression of the os uteri; nor, on the other hand, shall we, by raising the os uteri, be able to communicate an impulse to the right hand upon the abdomen. In some cases, however, where there has been peritoneal inflammation, and where the enlarged ovary is firmly attached to the uterus, these signs are valueless; for the uterus and ovarian tumour will be found so adherent, that the one obeys the movement communicated to the other. When the ovarian tumour is of large size, or where hard tumour of the uterus has acquired a considerable magnitude, much advantage will be gained by taking the measurements on either side and comparing them. These measurements should be taken from the anterior and superior spinous process of the ilium to the umbilicus, and from the centre of the body before to the centre of the spine behind.

6. Abdominal tumours of various kinds are frequently mistaken for hard tumours of the uterus. These are enlarged liver, hydatids of the liver, enlarged spleen, scirrhous pancreas, mesenteric disease, and chronic abscesses of the abdominal

parietes: but a careful investigation of the history of these cases, the point at which they commenced, their increase upwards or downwards, the constitutional symptoms that attended their development and that have marked their course, and, above all, a vaginal examination carefully instituted, will, I think, in most cases prevent us from falling into the error of confounding them with hard or fibrous tumours.

Termination.—These tumours, if they be not interfered with, or if pregnancy do not supervene, seldom cause much pain; neither do they appear in any marked degree to abbreviate the duration of life. If, however, a blow be received on the part affected, or if pregnancy take place, inflammation may occur at the period of delivery, followed by softening of the morbid structure. This will be attended with symptoms of high constitutional excitement, and generally terminate fatally. When the tumours are examined under such circumstances, the centre is found to be softened into a pultaceous mass, and the structure of the uterus around the tumour inflamed, its vessels often filled with pus or a purulent fluid. In some instances life is destroyed by the mechanical obstruction which the tumour offers to the evacuation of the bowels, the patient dying with all the symptoms of strangulated hernia. Again, as in the case I have already referred to, owing to the prevention of the discharge of the urine, the bladder becomes distended, the ureters become dilated and filled with

urine, the pelves of the kidney enormously enlarged, and symptoms of coma supervene. Necroscopic examination will generally reveal, in addition to these appearances, copious effusion of fluid, in the sinuses of the brain, having a urinous smell. Not unfrequently, especially in the pedunculated form of fibrous tumours, or in those cases where the tumour has its seat in the cellular tissue beneath the mucous membrane, there will be frequent attacks of hæmorrhage, producing all the symptoms of anæmia, and at the last destroying the patient by exhaustion, or by fatal syncope during an attack of bleeding.

These tumours have been said occasionally to disappear spontaneously (Clarke); but such a fortunate termination must be exceedingly rare.

Treatment.—If the tumour be small, and if it do not impede any function, the best treatment, in my opinion, is not to interfere with it. I have known many cases where tumours have been stationary for years without treatment, and where patients have been advised to try various methods of cure, the only effect of which has been to weaken the constitution and to arouse the morbid structure into activity, causing it to increase, and ultimately prove fatal.

Attention to the due performance of the secretions, regular habits, daily exercise, generous nutritious diet; in short, all those methods calculated to improve the general health are to be enjoined, while all circumstances that are likely to induce

inflammation should be avoided. If the patient be single, she should be told of the dangers that will accrue from pregnancy in an uterus affected with this disease. The inconveniences that ensue from the mechanical obstruction caused by these tumours must be met as they arise; the bowels should be kept free by laxatives and mild enemata; and, if necessary, the catheter must be daily resorted to, to evacuate the contents of the bladder. This, in many cases, requires some management; a long, flexible instrument is best adapted for the purpose. Sometimes there are occasional pains in the tumour, accompanied with a sensation of forcing and an increase of weight: when such is the case, blood should be drawn from the loins by cupping, or a few leeches should be placed above the pubes, or around the vulva.

These measures, it will be seen, are merely palliative; and it is a question which has divided the medical profession, as to whether these tumours are capable of absorption. I have already referred to the statement of Sir C. M. Clarke with regard to the spontaneous removal of such tumours; and it may reasonably be asked, if such tumours are capable of spontaneous absorption, is it not probable they may be absorbed when the constitution is influenced by those remedies which are known to possess a peculiar and specific influence on that system? Dr. Ashwell, in the Guy's Hospital Reports, vol. i., has related several cases in which hard tumours of the uterus were treated by iodine,

given internally, and applied to the cervix by the finger, sponge, or whalebone, every night. He regards the remedy as "decidedly beneficial" and unattended by constitutional "injury." When the tumour is confined to the walls, the extent of the benefit derived, he states to be "the restraint of the lesion within its proper limits, and improvement of the general health." While, lastly, he is of opinion that hard tumours of the cervix and indurated puckering of the os uteri may be "melted down, and cured by the iodine." So far as my experience has gone in the treatment of this disease, I have never found the full and free exhibition of iodine followed by absorption of the hard fibrous tumour, when I was firmly convinced that such was the disease under which the patient laboured. I have, it is true, seen a stop given to the growth of the tumour after the exhibition of this remedy, although previously its increase may have been rapid. If we desire quickly to avail ourselves of the advantage of the iodine, we must have recourse to occasional leechings over the tumour, or to the vulva, or to cupping on the loins, at the same time attending strictly to the due performance of the secretions, giving the patient mild unstimulating diet. While the medicine is administered internally, the ointment may be rubbed over the abdominal parietes night and morning.

Mercury, in small doses, has also been recommended; but, in my experience, it has tended to depress the powers of the constitution, to increase

irritability, and to favour the rapid growth of the tumour rather than to cause its absorption. Blisters and frictions with anodyne liniments have also been advised. The former I have repeatedly tried without effect; the use of the latter I have seen of considerable advantage in relieving the pain, but they never have caused the absorption or led to the diminution of the tumour itself.

I have before stated that these tumours occasionally project through the os uteri, and form a variety of uterine polypi. When they thus present themselves, if practicable, the operation of removal by ligature or excision may be attempted; but the breadth of the base or uterine attachment is frequently so considerable, that removal by ligature is seldom accomplished. This statement will, I think, be verified by the following cases.

Case XXVI. I am indebted to Mr. C. Muriel for the particulars of this case. Mrs. H., aged about forty years, has given birth to one child, and that twenty years since. For six years she suffered from occasional attacks of uterine hæmorrhage, and as they occurred more frequently, and as the amount of blood lost was very considerable, Mr. Muriel, suspecting the cause to be a polypus, instituted an examination, but without detecting any morbid growth. She was subsequently seen by two eminent accoucheurs, who also failed to discover any tumour or uterine enlargement. Two years since Mr. M. was again called to her,

and found her sinking from repeated losses of blood. Upon examining the lower abdomen externally, he felt a tumour considerably larger than a child's head; and upon passing the finger into the vagina, a hard fleshy growth could be felt protruding through the os uteri. On the next day she was seen by Dr. Locock, who at once decided upon passing a ligature; but from the smallness of the protrusion the ligature had a very slight hold, and about the seventh day came away without any portion of the tumour. Dr. L. then excised portions of the growth sufficient to fill a quart basin; and from time to time pieces have been cut off. At the present time (June, 1843), there is a tumour in the uterus larger than the head of a child three months old. Occasionally there are attacks of hæmorrhage. "It was hoped that the remainder of the tumour would have passed into the vagina; but up to the present time this has not taken place."

Case XXVII. M. B., married, and the mother of seven children, observed that shortly after the birth of her last child, about ten years since, there was a slightly coloured discharge from the vagina, accompanied with a dragging, bearing down sensation of the uterus, and subsequently a difficulty in evacuating the bladder, requiring the catheter to be employed for upwards of a fortnight. At this time also an enlargement of the abdomen was noticed, and upon a vaginal examination a tumour of a polypoid character was felt, descending into the

cavity of the pelvis, and pressing upon the neck of the bladder; its attachment to the wall of the uterus was by a broad base, preventing the application of a ligature, which at that time was attempted. Subsequently she miscarried twice, and from that time the tumour appeared to increase very rapidly; there was no hæmorrhage, and her state of health was tolerably well. In March, 1841, the report is, "The hypogastric region is considerably enlarged, and to the left an indurated scirrhous mass is to be felt, giving no pain on pressure; it occupies the whole vagina, and a portion as large as the clenched hand protrudes through the external parts; it is dark coloured, and highly offensive, and may be traced up to the fundus and left side of the uterus. Since the tumour has protruded, the abdominal enlargement has diminished; but she now experiences occasional acute lancinating pains, and there have been occasional discharges of coagula mixed with an offensive grumous fluid, and her health is beginning to suffer." There were daily attacks of fever; her pulse was weak and quick; her tongue loaded, but moist; urine scanty, but passed without much difficulty. A ligature was now applied about one inch within the vagina, and the protruding portion of the tumour was cut off. On examination it presented a firm fibrous character, the investing membrane alone displaying any vascularity: there was no hæmorrhage: the ligature came away in a few days, and she was much relieved. In a short time she was enabled to

get about, and continued to do so for two or three months; but she was still subject to offensive discharge and pain, the greater part of the vagina being filled up by the tumour.

In July, 1841, she became a patient of the Surrey Dispensary, and was placed under the care of Mr. Kent, who on visiting her found her suffering from very severe uterine pains, which had been gradually increasing since the previous morning; her countenance was expressive of great distress, the pulse was quick and feeble, with a hot dry skin, great thirst, and constant vomiting. On examination, "per vaginam," a smooth, firm, resisting tumour, of very considerable size, not susceptible of pain, and depending by a very broad base, was found to occupy the whole of the vagina, and the more depending part seemed ready to emerge at the external orifice. Mr. K. determined to attempt its removal by ligature, although he anticipated considerable difficulty, in consequence of want of space, and by reason of the breadth of the base of the tumour, which completely filled the upper part of the vagina; but in consequence of the exhausted condition of the patient he deemed it advisable to defer the operation until the following day, in the meantime endeavouring to tranquilise the constitutional symptoms. For this purpose he ordered her

Liq. opii sed. ℥xl. stat. et haust. effervescens, 6tis horis.

These had the effect of abating the pain and sick-

ness, and she had two or three hours refreshing sleep during the following night. Towards morning the pains returned, and gradually increased to intensity, so that when visited at 10 a. m. the greater part of the tumour was found to have passed the external orifice, and by slight traction a more perfect opportunity was obtained of ascertaining the extent of its origin, which proved to be from the anterior and posterior labium and left commissure of the os tincæ, and from the internal surface of the uterus: the tumour was of a livid colour, and covered with a fibrous investment. A long straight needle, with a strong double ligature, was passed through the base as near as possible to the os tincæ, and tied; after which the greater bulk of the tumour was removed by the knife. No blood was lost. The patient was troubled for some days with constant sickness, which proved very obstinate, but eventually yielded to large doses of hydrocyanic acid. The ligature came away on the fifth day, and a considerable quantity of slough was passed from time to time until the fifteenth day, when a clean, and, to all appearance, a healthy surface could be seen on examination with the speculum. An involuntary discharge of urine distressed her for some time after the operation; but she gradually recovered, and is now (July, 1843) in the enjoyment of good health. The catamenia appeared four months after the removal of the tumour, and she says they recur every fortnight.

I am indebted to Mr. Hankins of the Dover Road,

and to Mr. Kent, surgeon to the Surrey Dispensary, for the particulars of this interesting case.

a. *Hard or Fibrous Tumours associated with Pregnancy.*

Although, as I have previously stated, patients affected with hard tumours in the uterus are generally sterile, yet they occasionally become pregnant. Several such cases are on record, and I myself have seen five or six. When hard tumour is associated with pregnancy, the greatest attention should be paid to determine the exact seat of the tumour, its size, &c., in order to determine the line of treatment it is necessary to pursue. Occasionally these fibrous tumours are not discovered until after delivery. This was the case in a young woman 24 years of age, whom I attended in her first confinement. After her delivery, I found two tumours of the size of walnuts attached to the fundus of the uterus, of the previous existence of which both the patient and myself were unconscious. Dr. Montgomery, at p. 182. of his admirable work *, states that he is in the habit of attending two ladies, one of whom has had eight children, and the other five, with easy labours and good recovery, the former lady having two fibrous tumours as large as walnuts in the anterior surface of the fundus uteri, and the other having one tumour of the same kind and

* Signs and Symptoms of Pregnancy.

size over the entrance of the Fallopian tube. These tumours are not perceptible till about the fourth month of pregnancy, and have never given any trouble. Not unfrequently, however, when pregnancy occurs in an uterus thus affected, there will be increased action in the tumour, as indicated by pain, tenderness, and increased swelling. In these symptoms, the constitution participates, the stomach becomes irritable, the intestinal functions deranged, the pulse becomes frequent, and the patient emaciates. Amongst other effects of these tumours combined with pregnancy, abortion, occasional deformity of the fœtus, and monstrosity must be enumerated. Our prognosis in cases of pregnancy, associated with hard tumour of the uterus, must at all times be doubtful. Much, however, must depend upon the situation of the tumour or tumours, and the obstruction that it may cause to the passage of the child, and to the probable injury that the tumours themselves will experience when the uterus is called into action at the full period of utero-gestation. With the view of preventing the greatly increased size of the tumours, as well as to prevent the contusion and bruising which they must undergo during labour at the completion of the full period of utero-gestation, Dr. Ashwell has recommended the induction of premature labour: for his opinion upon the subject his paper in the first volume of the Guy's Hospital Reports may be consulted. Several cases have fallen under my notice, in which fatal results have taken place from

the softening down and disintegration of these tumours after delivery. A similar case is related by Dr. Marshall Hall in the second volume of his "Principles of Diagnosis," where there was profuse menorrhagia during twelve years of unfruitful marriage: the patient became pregnant, the tumour was distinctly felt in the parietes of the distended uterus, parturition was accomplished well, but the fibrous tumour became inflamed, and this led to a fatal result.

If there be increased action or subacute inflammation in the tumour before delivery, the occasional application of leeches, the recumbent position, the use of gentle aperients, and mild unstimulating diet, with fomentations, are the measures that should be resorted to for its treatment. If the tumour be of small size, if it be attached to the fundus uteri, or if it be so located as not to impede the progress of the child, the case should be left to nature. Many cases are recorded where such tumours have not interfered with the progress of labour, and have not been discovered until a necroscopic examination was made, even though they had attained a considerable size. Patients occasionally die from uncontrollable hæmorrhage after delivery, induced by the presence of these tumours, as in the case of Professor d'Autrepoint, published in the "Archives de Medicine," Mai, 1830. Some writers have recommended the removal of these tumours by the operation of "excision." Lisfranc has removed them by making incisions through the cervix. If

the tumour be limited to the portio vaginalis of the uterus, the operation of removal may be resorted to, as in the case stated by Dr. Ingleby, which was operated upon by Mr. Evans of Belper; but, as a general rule, it may be affirmed that, while these tumours are within the cavity, they will not admit of removal; but if they become pedunculated, and pass through the os uteri, they may be treated in the same way as polypi. Puncturing these tumours is of no avail, as for the most part they are solid: if they contain fluid, it is generally of a gluey, gelatinous, or grumous consistence; and the evacuation does not give rise to sufficient collapse to allow of the transmission of the child, when an obstacle sufficient to impede its birth is occasioned by the tumour. The operation of version is useless when fibrous tumours occasion such an obstacle to the birth of the child as to render artificial assistance necessary, not to mention the difficulty experienced in introducing the hand into the uterus to grasp the feet. If called to a patient in labour in whom such an obstacle to the passage of the child exists, we must make a careful examination to ascertain whether we can safely leave the case to the natural efforts; but, if we are convinced that the unaided powers of the uterus will not be sufficient to expel the child, we must then determine whether the embryospastic or embryotomic instruments must be employed to complete the delivery. In such complications, we must not allow the labour to proceed too long before such assistance is given,

as not only may the tumour be so bruised and compressed that inflammation of its structure, followed by suppuration or gangrene, may take place, but also the uterus itself may give way. In some cases the tumour is so large that embryulcia cannot be performed; or, if the head be perforated, the child cannot be extracted through the small space.

If a patient affected with a fibrous tumour become pregnant, and if that tumour be so situated or be of such a size that it will impede the progress of labour, it becomes a matter of great moment to determine whether or not the operation for the induction of premature labour should be performed. This operation was first recommended by Akakia. (See "Spachii Gynachia," p. 783. lib. ii. cap. 4. *De Abortû:* also Dr. Ashwell in vol. i. of "Guy's Hospital Reports.")

Case XXVIII. In July 1841, I attended Mrs. P. in labour with her first child: her labour was rapid, the child born with the nates presenting. Upon placing my hand over the abdomen, after the birth of the child, to ascertain whether a second fœtus was present, I found the uterus well contracted, but was surprised to feel a tumour of the size of a walnut attached to either cornu of the uterus. The laxity and thinness of the abdominal parietes enabled me closely to examine these tumours: they were harder than the viscus itself, were broader at the uterine end; firm pressure between the fingers caused no pain. The placenta was expelled natu-

rally; the discharge, both at the time of labour and at the convalescence, was not more in quantity than natural. The only inconvenience the patient suffered was a degree of tenderness experienced when the tumours were pressed upon; this lasted for eight or nine days after delivery: after this time they became smaller, and when I examined the abdomen four weeks after delivery, I could still feel them about the size of a cobnut. She had experienced no symptom that led her or myself to suspect the presence of these tumours. Her catamenia had been regular, and she had never suffered from menorrhagia.

Case XXIX. A woman who had been under my care for some months with hard tumour of the cervix uteri, accompanied with menorrhagia and leucorrheal discharge, contracted marriage. Within three months she became pregnant: she suffered severely from sickness, and had all the signs of early pregnancy well marked. At the fifth month she fortunately miscarried. There was a considerable loss of blood, and the debility caused thereby was treated by tonics. In nine months after her miscarriage she again conceived, and her pregnancy went on until the sixth month, when premature labour took place: the discharge of blood was again inordinate. On the third day after her delivery she was seized by rigors, followed by considerable pain and tenderness in the region of the uterus, especially at the seat of the tumour. This was

treated by leeches, poultices, and the administration of calomel and opium, and after a long and protracted convalescence she recovered. During the existence of the pain in the uterus and tumour, the discharge, which had been excessive, stopped. After her recovery, the tumour was found to be considerably larger than at the time of her first abortion. I have not been able to learn the issue of her case as she has left the country.

C. STRUMOUS TUBERCLES OF THE UTERUS.

The uterus is but little prone to be attacked by tuberculous disease, for out of 358 cases observed by M. Louis, but one had tubercular affection of the womb. Yet we do occasionally meet with development of this disease in the uterus, giving rise to various symptoms, and leading us to mistake this affection of the womb for pregnancy, or some other uterine disease. The most common form of tuberculous disease of the uterus that we meet with consists in the deposit of the tuberculous matter in the exterior or interior surface of the uterus, stimulating other diseases, and giving rise to many symptoms which, until the malady becomes completely developed, cause the practitioner a great deal of anxiety and trouble.

Case XXX. I was once requested to see a lady 26 years of age: she had been married ten days,

and had previously enjoyed good health. After her marriage she took a long journey, and while some distance from home, in descending the stairs of an hotel, she felt a pain at the lower part of the abdomen. This pain did not leave her, and was associated with sickness, impaired appetite, &c. The bowels were regular, the pulse was excited, and sickness was complained of. She missed her next monthly period, and the sickness, if any thing, increased; the tenderness of the lower abdomen became augmented, and her countenance became anxious. In about three weeks there was a decided fulness at the lower part of the stomach, and upon careful examination a tumour could be felt. The pain over the swelling was greatly increased by pressure; the sickness augmented; the emaciation increased; her appetite became less; and, notwithstanding tonics, iodine, &c., were prescribed, this young lady became decidedly worse. I consulted with two eminent physicians, and they concurred with me in opinion that this young lady was not pregnant, that the disease under which she was labouring was tubercular peritonitis, and that the tumour in the region of the uterus was probably a large tubercle, or a cluster of tubercles. Vaginal examination detected the uterus to be completely fixed in the pelvis. Within five months from the period of marriage this lady died (without the menses having made their appearance) greatly emaciated. The immediate cause of her death was the

giving way of the diseased intestines, and consequent effusion of the fæcal contents into the abdomen, causing peritonitis. Upon examination, the whole of the peritoneum was found to be studded with tubercles; attached to the uterus there was one of very large size; while, in addition, the whole of the structure of this viscus was completely infiltrated; in fact, the tubercular deposit appeared to be universal throughout the body. This case was remarkable from the lady being very robust and stout, with rosy cheeks, &c., before her marriage; and from her being seized, ten days after marriage, with acute pains, which continued until her decease.

Sometimes the tubercles are met with isolated, of a rounded form, and containing more or less cheesy matter; these attain to various sizes, and during life lead to much difference of opinion as to their nature. The age of the patients affected—the constitution of the patients in whom they occur—the existence of strumous disease in other parts, will assist us in framing a correct diagnosis; while the treatment will consist in those remedies which have a tendency to improve the general constitution, as iodine, tonics, sea-bathing, &c.

Where strumous disease exists in other organs, we occasionally find tubercles scattered here and there in the uterine structure; but these are by no means in sufficient quantity, nor is their size sufficiently large, to attract notice or cause any marked or prominent symptom.

D. DISEASES FROM IMPURE SEXUAL CONGRESS.

The diseases which result from impure sexual congress are venereal ulcerations and gonorrhœa uteri.

a. *Venereal Ulcerations.*

These ulcerations are true venereal chancres situated on the os and cervix uteri, presenting the same appearances as those on the external parts: their edges, when seen through the speculum, are hard, high, swollen, and ragged; and their surface is covered with a grey, sanious layer of discharge.

Case XXXI. A year or two back, a female, 18 years of age, who had been for twelve months following the life of a prostitute, applied to me with procidentia uteri. The womb was down through the external parts to a considerable depth; on the anterior lip, there was an excavated ulcer, its surface covered with a grey sanious discharge; the ulcer was deep, and its edges were hard and ragged. The girl was very much out of health, had been living very dissolutely, and had been subjected to much exposure. I took her into the Hospital; ordered the Lot. Nig. to be applied to the sore, and gave her Pot. Iodid. gr. v. t. d. ex. Mist. Camph. After some time the sore healed; but a considerable period elapsed before it lost its induration. In ten weeks after the healing of the ulcer she showed herself to me with syphilitic

ulceration of the throat; complained of pains in her limbs; and I found her body covered with syphilitic lepra. She was ordered five grains of Plummer's Pill night and morning: the Pot. Iodid. with Sarsaparilla was administered in five-grain doses three times a day, and the Nitric Acid gargle was ordered to the throat. She continued this medicine for several months, and is now free from the disease. By means of the speculum I have in several other cases detected chancres upon the os uteri, which have yielded to the same treatment as venereal ulcerations upon other parts of the body. Some have been followed by secondary symptoms; but all have been treated upon the same principles as syphilitic patients generally. The lotion I generally employ is the Lot. Nigra of half strength (g. v. to ʒi), and warm.

b. *Gonorrhœa Uteri.*

In women who have been exposed to impure connexion, in addition to the thick, yellow, or greenish discharge which flows from the vagina, causing great irritation in those parts, accompanied with scalding in the passage of the water, &c., we find, upon the employment of the speculum, one of the following conditions:—The os and cervix uteri covered with an erythematous blush; 2. superficial ulcerations existing over a greater or less extent; 3. herpetic eruptions on the os tincæ, which burst and form minute ulcers; or, 4. we find the

mucous glands around the os and cervix much enlarged. These conditions of the uterus are accompanied with pain more or less severe, but in all cases augmented by examination, while the heat of the parts is sensibly increased.

In treating these cases we should apply ourselves to lessen the activity of the inflammation by local depletion, the employment of cooling saline aperients, and the use of tepid anodyne injections. When the symptoms of activity are removed, and the disease has assumed a chronic form, injections of the solution of nitrate of silver, commencing with three grains to the ounce, and gradually increasing the strength, if steadily persevered in, will be found sufficient, as far as my experience has gone, to remove the disease. But during the whole process of cure the patient must abstain from sexual intercourse, or from the contact of persons and things that will cause excitement of the genitals. At first her diet must be antiphlogistic, and as the chronicity of the disease supervenes, it may be of a mild, bland, nutritious nature.

For two or three months after the removal of the disease she should syringe the internal organs with tepid or cold water night and morning, of course relinquishing this a few days before the expected appearance of the catamenia, and not recommencing until three or four days after their departure.

PART III.

MALIGNANT DISEASES OF THE UTERUS.

Under the division "Malignant Diseases" I include —1. Cauliflower Excrescence; 2. Corroding Ulcer; 3. Melanosis; and, 4. Cancer.

I. CAULIFLOWER EXCRESCENCE.

This disease of the uterus was first termed Cauliflower Excrescence by Dr. John Clarke in the third volume of the "Transactions of a Society for the Improvement of Medical and Surgical Knowledge." The name was continued by his brother, Sir C. M. Clarke, in the second volume of his work on the "Diseases of Females." It appears to differ but little from that disease described by Herbiniaux and Levret under the term "Vivaces." It consists in the growth of a highly vascular tumour, of a bright flesh colour, with a granulated surface, generally growing from a part or the whole of the os uteri, and sometimes also from the uterine cavity. In comparison with the other organic diseases of the uterus it is very rare. My records state that I have seen but three cases of cauliflower

excrescence of the uterus, while they contain a list of more than 350 cases of cancer of the womb.

The structure of cauliflower excrescence is pretty firm, but still, if pressed strongly by the finger, it bleeds. It has a very fine membrane spread over it: this membrane secretes a copious watery fluid. After death the tumour disappears, nothing being left but a mass of flocculi, apparently empty vessels: the same effect takes place when a ligature is applied. Pathologists have not succeeded in injecting these tumours; and out of several cases that came before his notice Sir C. M. Clarke was able to save but one preparation. Cauliflower excrescence is in most cases attached to the os uteri; but occasionally it grows from the cavity of the uterus, projects through the os, and extends even through the external parts. This extension of the tumour is much influenced by the size of the vagina. If the patient be unmarried, or if she never have borne children, or if the vagina be small, the growth of the tumour will be restrained; but, if the vagina be lax and dilatable, it occasionally acquires a very large size. If a ligature be applied, and the tumour removed beneath it, it will rapidly grow again.

This disease is met with in females of all ages, in the married as well as the unmarried; women of all temperaments and habits are equally liable. By some pathologists it has been attributed to injury of the cervix received during labour; but this will not account for its appearance in virgins. Syphilis

and excessive coition have also been enumerated as causes of cauliflower excrescence; but the "filles publiques" do not appear to be more liable to the disease than virtuous and prudent females. The symptoms that mark the development and progress of this disease are a moisture in the external parts, which soon amounts to a copious watery discharge from the vagina. This is generally poured out in quantities so considerable that the patient moistens several napkins in the course of the day. The effects of this continual drain upon the system are soon felt and seen: the patient's countenance becomes blanched, her eyes are hollow, they have a dark shade around them, her eyesight is dim, the pupils are large, there is quickness of respiration, loss of breath when ascending stairs or walking a moderate distance. She complains of pain in her left side, there is palpitation of the heart, lowness of spirits, loss of appetite, sometimes vomiting, tympanitic distension of the abdomen, impaired digestion, she complains of great thirst, she loses flesh, frequently the extremities become œdematous, and in some cases effusion takes place into one or all of the large cavities, in this way causing death. At first the watery discharge is streaked with blood, but soon becomes a perfect hæmorrhage, which continues a longer or shorter time: between the intervals of bleeding, the watery discharge is profuse. Sexual intercourse, the evacuation of hardened fæces, or a digital examination by the surgeon, will bring on the bleeding. The feeling

of the tumour is not unlike that communicated to the finger when placenta is felt. When an examination is made, the patient does not generally complain of pain; for, indeed, the tumour does not seem to be endowed with any sensibility. If the speculum be employed, we may see the granulated surface of the tumour, its colour being a bright flesh red.

Diagnosis. — This tumour is to be diagnosed from a placental presentation by the absence of the common and stethoscopic signs of utero-gestation; by the os uteri being felt healthy and normal around and below the substance: the diagnosis, however, is rendered more difficult when cauliflower excrescence of the uterus and pregnancy co-exist; in such cases abortion or premature labour generally occurs.

2. From the fungoid growths of cancer it may be known by the latter being mostly formed within the neck and cavity of the womb, by the premonitory symptoms and previous history, by the pains which attend the development of cancer, and by the absence of that constitutional irritation which so generally marks its progress.

3. From pedunculated tumours it may be known by its want of a pedicle, its granulated surface, by its softness, its bleeding upon slight pressure, &c.

An unfavourable prognosis must be given in almost all cases of this disease. Patients are generally considerably anæmiated before they apply for advice, and not unfrequently their constitutional

powers are too much depressed to admit of much being done. These cases terminate more favourably where the disease grows from a part of the os uteri, as then it is more easily encircled by a ligature; but, even under these circumstances, in many instances it is reproduced.

Termination.—The patient may die from syncope during an attack of hæmorrhage, or she may die from effusion into the serous cavities of the body, especially the head, coma and its attendant signs preceding death; or the bowels may become disordered, and she may sink exhausted with diarrhœa.

Treatment.—The treatment of these tumours consists, firstly, in the use of astringents and astringent injections to diminish the watery discharge, to lessen the size of the tumour, and to cause contraction of the vaginal walls which compass the morbid growth. For this purpose the Sulphate of Zinc, Alum, Kino, the Sulphate of Copper, Sulphate of Iron, and Decoction of Pomegranate are of service. The patient should be cautioned not to introduce the tube of the vaginal syringe too far into the canal, lest she should bring on hæmorrhage: it is therefore better that an instrument guarded by a shield should be employed. If the tumour occupy so much of the vagina that a syringe cannot be employed, the patient should be placed upon her back, with her hips raised, and the lotion should be forced into the canal, or, if the tumour be external, by means of a piece of lint,

the lotion may be kept constantly applied. If this treatment do not succeed, the ligature must be resorted to, and applied in the same way as in polypus uteri. It is well to use a broad ligature, and not to tighten it so often as in the operation for removing pedunculated growths. Two, or at most three days suffice for the removal of this growth. Unfortunately, in many cases the excrescence grows again, producing the same symptoms, and leading to the re-performance of the operation. This tendency to reproduction may be kept in check by the use of astringent injections; but it is better, if possible, by the aid of the speculum, to apply some caustic, as the muriate of antimony or the nitrate of silver, to the spot where the tumour grew. Such treatment Dr. Churchill states he has employed with success.

The recumbent position of course must be maintained; the patient's diet must be bland and nutritious; stimuli must be avoided; the secretions must be kept free, and the bowels open, for the evacuation of hardened fæces frequently leads to the reproduction of hæmorrhage. Sexual intercourse must be emphatically interdicted; in short, all stimuli, both of body and mind, must be forbidden. The patient should take some mild bitter tonic, as the Infus. Aurantii C..., Calumbæ; Cascarillæ; or Cuspariæ, two or three times daily, to restore tone to the stomach, which, in common with the rest of the system, will become weakened by the continual drain.

Where pregnancy has been associated with this disease, it has been mistaken for the presenting placenta, but a surgeon accustomed to the tactile examination of uterine diseases is not likely to make such a mistake. This disease rarely offers any very serious obstacle to the progress of labour, although serious, and occasionally fatal hæmorrhage follows the delivery of the child; but, where it is of such size that it is likely to impede delivery, a ligature should be applied before the symptoms of labour supervene. Where pregnancy is associated with cauliflower excrescence, it frequently terminates in abortion; this is shown in the case to be presently narrated; also in the one recorded by Dr. F. Ramsbotham, in the foot note of page 246 of his work. Cases of pregnancy occurring in women affected with cauliflower excrescence are also recorded by Sir C. M. Clarke, M. Lachapelle, Denman, Michaëlis, Zippenfield, D'Outrepont, and others.

Case XXXII. Jane Mortimer was under my care as an out-patient at Guy's Hospital. During the treatment of her case, she became pregnant, but aborted at the fourth month: the hæmorrhage accompanying the miscarriage was very profuse, and the patient was greatly anæmiated. In six months time she again became pregnant, and about the thirteenth week again miscarried; the hæmorrhage attending which was of a very alarming nature, and reduced her powers to so low an

ebb, that she lingered for some weeks, and then sank.

The body was inspected by my friend Dr. H. Glasspoole of Jamaica and myself. Although a considerable excrescence was detected by a vaginal examination during life, nothing but a mass of loose flocculi could be found attached to the circumference of the os uteri, and a portion of the inner membrane of the cervix.

II. CORRODING ULCER OF THE UTERUS.

History, &c. — This form of malignant disease was first termed "Corroding Ulcer of the Os uteri" by Dr. John Clarke; under this name it has also been treated of by his brother Sir C. M. Clarke, Bart. The disease consists in a malignant ulceration of the mouth and neck of the womb, the remaining portion of the organ being scarcely at all enlarged. When an organ affected with this disease is examined after death, it will be found to have a greater or less portion removed by ulceration, which extends itself in a circular manner, so as to completely destroy the cervix and part of the body, a small quantity of cellular tissue alone connecting it with the vagina. Sometimes it is found that the disease has attacked the anterior or posterior surface of the organ only, spreading from thence to the bladder or rectum. Sometimes the ulceration extends to the fundus uteri, and destroys the greater

part. One singular feature is peculiar to this disease, that there is no deposition of new morbid matter, either in the uterus itself, or in its neighbouring parts. This is confirmed by the remarks of Sir C. Clarke, who says, "If the body of the patient be inspected after death there will appear abundant evidences of the destructive process, but no hardness, no thickening, no deposit of new matter."

Pathology.—The disease commences in the cervix uteri, and from thence extends downwards to the os uteri, and upwards towards the fundus: it appears to have its origin in the glandular structures around the neck. It is more frequently found in females about the period of the cessation of the menses. Sir C. Clarke states he has never observed it before the age of forty. I have seen it in a woman of the age of thirty-six years, and lately in a woman aged thirty-five years.

Subjects.—Women of the lymphatic temperament appear to be more susceptible to the disease than others.

Symptoms.—The symptoms that precede the disease, are, occasional pain or uneasiness in the pelvis, a sensation of heat, leucorrhœa, &c.; these sometimes are considered of no moment, or are so slight that they are disregarded, and the first symptom that excites the apprehensions of the patient is hæmorrhage. If an examination be made at this time, we shall be surprised at the extent to which the disease has proceeded; the ulceration is

generally of some considerable size, having a rough and granulated surface. During the examination, even when the finger is passed over the ulceration, the patient does not complain of pain; neither does she wince when pressure is made on the part affected; she merely expresses herself as feeling sore. In each subject the situation and course of the ulceration will be found to vary: there is no gluing of the pelvic contents together, rendering them immoveable as in carcinoma uteri; the hæmorrhage which may first have excited the alarm in the mind of the patient will continue to recur at intervals throughout the disease, and between the intervals of bleeding there is a secretion of thin ichorous offensive fluid, its colour varying from a straw colour to a dark brown; very rarely, it is purulent. In some cases the pain is relieved by the hæmorrhage. It appears also to have some slight effect in controlling the progress of the disease. The extension of the local mischief is accompanied with marked constitutional symptoms. The patient emaciates, she loses her appetite, she has sickness, the secretions are disordered, the bowels irregular, the pulse quick and small, the skin dry and sallow, and there is considerable fever. She complains of weakness, a sensation of weight and pain in the back, extending to the loins or round the lower part of the abdomen. The pain is variable: sometimes it is lancinating, sometimes burning, sometimes dull and heavy, and in a few cases no pain

whatever is complained of. As the disease proceeds the features become sharpened, the eyes sunk, the dark circle around the eyes increased: the patient emaciates still further; there is more fever, less appetite, constipation of the bowels, and, as the ichorous discharge increases, there is frequently excoriation of the vulva and external genitals.

Termination. — The most frequent method of termination of the "corroding ulcer" is by exhaustion: the patient's constitutional powers are broken down by the continued discharges, sanguineous as well as ichorous. Occasionally fatal hæmorrhage will occur; but this is by no means a common termination of the disorder. Not unfrequently diarrhœa supervenes; and when this is the case it rapidly destroys what little power of life the disease has left. In some instances the peritoneum becomes inflamed; and when this occurs, it rapidly hurries off the suffering patient.

Diagnosis. — The disease with which corroding ulcer is most commonly confounded, is ulcerated carcinoma. The time of life at which they make their appearance, the discharges, the emaciation, the febrile excitement, are the same in both. As a means of diagnosis some writers, as Sir C. M. Clarke, depend very much upon the character of the pains: he is of opinion that an intense and acute pain is not an essential of corroding ulcer of the uterus, and that the pain attending the latter differs in a remarkable degree from the pain which invariably attends carcinoma uteri. In many cases, however,

the pain alone will not distinguish them, as it is similar in both instances.

The diagnosis can alone be formed by the examination "per vaginam." If the disease be corroding ulcer of the uterus, there will be no deposition of new morbid matter; and the uterus, or as much of it as may be left, may be moved about by gentle pressure to a greater extent than in health, on account of the removal of some portion of the pelvic contents by ulceration, giving more space; while in carcinoma uteri an extensive deposition into the surrounding cellular tissue, as well as into the structure of the uterus itself, will be found to have taken place: this increase of structure will render the organ more immovable; thus affording a valuable means of diagnosis in investigating the two diseases. An examination "per rectum" should generally be made to confirm that previously instituted "per vaginam." Not unfrequently scirrhous disease of other organs is met with where it exists in the uterus; whereas, in corroding ulcer we do not find the disease implicating the other viscera of the body.

From simple ulceration of the womb it may be distinguished by the greater extent of the mischief, the foul and fetid discharges, the pain, and exeding character of the disease.

This disease is in almost all instances fatal; the length of time it takes to destroy life varying much in different cases. Patients are generally very far

advanced in the disease before they present themselves to the notice or treatment of medical men.

Treatment.—The treatment will necessarily vary according to the stage of the disease at the time the patient presents herself to our notice. If we see the disease before any solution of continuity has taken place, where there is merely fulness and heat, cupping on the loins, the application of leeches, hip baths, and laxatives, will be found of avail. If the ulceration have commenced, cauterisation may be practised. The actual cautery has been employed by some of the French practitioners; but I prefer using the nitrate of silver in substance, applying it through a glass speculum. Before applying this remedy it is advisable to wipe the ulcer with a piece of cotton or wadding. Great advantage may also be derived from using injections of the nitrate of silver, made by dissolving ϑss. ϑj. or ʒss. in ℥ij. or ℥iij. of distilled water. It is by means of this injection that the fœtid odour of the discharge will be corrected, and in many cases the pains will be assuaged. If these remedies fail to arrest the progress of the disease, sedatives must be had recourse to to allay the more distressing symptoms. These are Opium, Hyoscyamus, Belladonna, &c. Great comfort is derived to the patient by washing out the vagina frequently: a valuable injection for this purpose is the Decoct. Cydoniæ, or Decoct. Lini. Thin starch, or milk and water, has a very good effect in preventing excoriation. The bowels should be kept daily evacuated by occasional laxatives, as strain-

ing in the passage of the fæces frequently induces a repetition of the hæmorrhage. The patient's diet should be moderate, but nutritious, and of a mild unirritating nature.

If, when first consulted, we are certain of the nature of the ulceration, and if there be a septum of healthy tissue between the disease and body of the uterus, in my opinion, we should act wisely by excising the os uteri. It is useless, however, to attempt this operation if the disease have extended to the body of the organ, or if the whole of the disease cannot be removed by the operation. But of this matter I shall hereafter treat at length.

III. MELANOSIS OF THE UTERUS.

This form of the disease, a description of which I can find nowhere in the Treatises on Diseases of Women, I once met with in practice.

Case XXXIII. It occurred in the person of a woman, aged 45, who came to me complaining of a tumour in the lower part of the abdomen, which she stated had existed for upwards of twelve months: she had been married for many years, had borne no children, neither had she ever been pregnant. A careful external and internal examination led me to pronounce it to be a hard fibrous tumour. Palliative remedies, tonics, &c. were prescribed, to the improvement of her general health. Four months

afterwards she had considerable hæmorrhage from the uterus, which lasted a long time and at length abated, but not without greatly enfeebling her constitutional powers: the hæmorrhage was followed in the course of a few days by a dark, brownish black discharge, having a peculiar odour. I, at first, thought it was some of the blood which had become altered from retention in the uterus; it however continued in greater or less quantities, occasionally being mixed with blood, or the sanguineous discharge took place in its stead. Her powers began rapidly to decline; and in six weeks from the commencement of the hæmorrhage she was hurried off by a diarrhœa. Upon a necroscopic examination the uterus was found enlarged, and at the right and anterior part of the body there was a tumour, as large as a fist, developed in the proper tissue of the uterus. The consistency of the tumour varied: externally it was firm, while towards the cavity of the uterus it was much softer; its lining membrane was dark-coloured, stained with the secretion which had been discharged during life, but which was readily washed away by a sponge. Over the tumour, however, the mucous membrane appeared destroyed, and the surface of the tumour was changed into a dark melanotic mass. A section of this adventitious growth showed the deposition of melanosis in every part of the structure: externally it was studded with dark black spots, while internally it was changed into this disease. The disease had been, apparently, at the commencement,

simply hard fibrous tumour, but the matter of melanosis had been deposited in the adventitious growth, most likely in that part nearest to the uterine cavity first, and gradually extending to that portion of the structure the farthest from the cavity.

I have a patient now under my care whom I have occasionally seen for some months. At first, her symptoms were those of hard tumour of the uterus alone, although causing her great suffering from its location and mechanical irritation. Within the last two months, a discharge similar to that I have mentioned in the previous case has made its appearance; and on this account I have ventured to diagnosticate that a similar change is taking place in the structure of the adventitious growth. The profuseness of the discharges has had a rapid and baneful influence upon the state of her health; and I think it not improbable that before long I shall have an opportunity of testing by an inspection the correctness of the diagnosis.

In Guy's Hospital Museum there is a preparation, in which a scirrhous tubercle of the uterus is universally infiltrated with dark melanotic spots, giving it somewhat an appearance of being sprinkled with grains of gunpowder.

IV. CANCER, OR CARCINOMA OF THE UTERUS.

Under this term I include those heterologous formations, whether of an encephaloid, scirrhoid,

or colloid form, which have been differently named by the several writers who have described their physiology and pathology. From its commencement this disease is constitutional, or it very rapidly becomes so; for if the part affected be extirpated, the disease will return, and ultimately lead to the destruction of the patient. During the development of carcinomatous degeneration, the proper tissue of the part is always lost; and the structures, although very dissimilar, whether they be muscles, nerves, glands, bones, or other tissues, are alike involved in the morbid degeneration. Cancerous degeneration, however, does not merely consist in the mere translation of the previously healthy tissues, but the elementary forms of carcinoma are developed between their interstices; and so the natural structure is displaced. According to Müller, the germinal cells are formed from a real "seminium morbi," which developes itself between the tissues of the affected organ. The development of cancer is usually accompanied with the firm adhesion of the parts in its neighbourhood; so that the disease is less movable than other growths. When softening takes place, it does not always begin at the centre; neither is this disease at all times to be distinguished from the peculiar distribution of the vessels, or from any want of them.

Albuminous matter is the basis of all carcinomatous growths, for, if freed from skin and cellular tissue, they may be boiled for eighteen or twenty-

four hours, without yielding more than a trace of gelatine.

ANATOMY OF CANCER.

a. *Encephaloid Variety.*

When a section is made of an uterus affected with the encephaloid form of the disease, it will present the appearance of an almost homogeneous matter, of an opaque, milky colour, spotted with pinkish dots, which vary in number, size, and shape: its consistence is creamy or cerebriform; and when the torn surface of such a disease is closely examined, it will present a granular aspect. When such a tumour is minutely inspected, it will be found to be divisible into two parts; the one, which consists of dense septa, crossing the mass, and dividing it into lobes and lobules: these septa do not cross at right angles, or intersect each other; but they describe curves, which form "pouches," or "loculi," of various forms and sizes.* Their consistence is occasionally fibrous; and in some instances, they are found to be cartilaginous. Occasionally the texture of their laminæ is very delicate, similar to that of the spider's web. The consistence of these tumours varies in different parts; some portions are hard, whilst others are soft. If their structure be closely observed, it will be found that the difference of consistence is due to a variation in the mode of arranging the carcinomatous matter: thus, the hardest

* Walshe on Cancer in Cyclop. of Surg.

part presents a radiated or firmly granular appearance; that part where the consistence is less is "lobulated," or "largely granular," while the softest consists of "large lobes of diffluent pulp." The pink hue of encephaloid matter is doubtless due to the presence of numerous blood-vessels, varying in diameter from that of a hair to a line and upwards: they appear to contain fluid arterial blood, in some places isolated, striated in others, in the form of arborescent patches. The vessels may be traced from the cellular tissue, which invests the morbid growth; they then ramify in the septa, and from these are continued into the matter contained in the loculi. In addition to these vessels, small vascular tufts are seen in the substance of the encephaloid growths, which are apparently unconnected with the surrounding circulation: these tufts assume various shapes, the most common form of which is a single minute trunk, which terminates at either end by a number of ramusculi, branching off in a stellate form. Dr. Carswell* supposes they are frequently varicose, and have more a venous than arterial aspect. Dr. Hodgkin† thinks they consist of the capillary vessels of Bichât on a large scale. Cruveilhier‡, on the other hand, authoritatively affirms that they are veins. Lymphatics, however, have not yet been noticed in encephaloid matter, although Laënnec presumes their existence from

* Illustrations of the Elementary Forms of Disease. London, 1838.

† Lectures on the Morbid Anatomy of the Mucous and Serous Membranes, vol. i. London, 1836.

‡ Anat. Pathol. liv. i. &c. Par. 1829-30.

his having observed the adventitious tissue acquire a yellow tint in an icteroid subject. The only nervous filaments that are found in the morbid growth are those of the tissues, amid which it is developed. Glüge, Valentin, and Müller, have directed their attention to the microscopical investigation of this form of cancer; and from their researches three varieties of encephaloid cancer have been proved to exist. One is distinguished by the predominant formation of medullary matter from roundish formative globules, deposited beside the tender fibrous meshes intersecting the mass. The globules vary in size; the smallest measure $\frac{1}{123}$ of a millimeter in diameter: their form is more or less circular, their surface irregular, and, beside their transparent edges, they present points and blackish lines. Sometimes crystals are detected in great numbers, some of them reaching $\frac{1}{8}$ of a millimeter in size. Another variety consists of an extremely soft brainlike fundamental basis, composed of pale elliptic corpuscles without any caudal prolongation. Müller states he has met with this variety but once. The corpuscles had but little connexion with each other, and were from one and a half to twice as large as the human blood globules. There was no filament issuing from them, neither was there a nucleus or young cell in the interior. The third variety has caudate or spindle-shaped corpuscles. This variety, when torn, presents a fibrous aspect, especially when the caudate bodies follow a fixed direction, as in the cases de-

scribed by Valentin. Sometimes they are isolated, at other times they are in great numbers, producing a tufted or radiated appearance, according to the direction in which they are arranged.

The cavity contains a granular body, without a clearly distinguishable nucleus; or, in other cases, a nucleus with one or two nuclear corpuscules. Sometimes at one, at other times at both points of the ellipse the filamentous or caudal prolongation is observed, it may be either simple or bifid; and occasionally a third filament is found to spring from the side.

When encephaloid matter is exposed to the air it liquefies; it is miscible with water, and becomes hard when macerated in alcohol and the acids.

M. Foy has published an analysis which is as follows:

Albumen	47,00	Subphosphate of lime	6,30
White fatty matter	7,50	Carbonate of soda	2,75
Red „ „	5,35	——— of lime	4,00
Osmazome	4,00	——— of magnesia	1,00
Fibrine	6,50	Hydrochlorate of potassa	2,70
Water	8,00	——— of soda	2,00
Oxide of iron	1,35	Tartrate of soda	0,35

This form of cancer has been divided into tuberiform, stratiform, and ramiform. The first variety occurs when the matter is deposited in a situation where it undergoes pressure upon all sides. The stratiform is chiefly met with in the subserous cellular membrane, deposited in layers, while the term ramiform is used to denote the development of the adventitious structure in the veins, lymphatics and lacteals.

b. *Scirrhus.*

When a section is made of a scirrhous tumour, while in a stage of induration, the presence of a containing and contained part is immediately recognized. The incised surface has a glossy, semi-transparent aspect; it is of a greyish or blueish white colour; in some instances, it is said to be red, green, or brown. The containing tissue is formed of bands, of fibrous appearance, which are readily distinguishable by their being more opaque and less glossy, and their mode of arrangement varies considerably. In some instances, they form spheroidal cells, in others, they are deposited in right lines, in others, they radiate from a central fibro-cartilaginous nucleus, to the circumference of the tumour. It is not uncommon for the septa of a scirrhous tumour to stretch beyond the tumour itself into the surrounding cellular tissue.

Hardness is the principal characteristic of this species of carcinoma, and this induration is generally pretty equal throughout. Sometimes there are scattered through the substance of the tumour one or more small masses of homogeneous pulpy matter, of a yellow brown colour, semi-transparent and glutinous. The induration very quickly and almost suddenly softens, the layer of hard matter nearest the softened pulpy stratum possesses as much hardness as exists in the other parts of the tumour. By using considerable pressure to the section of a scirrhous tumour, a thin albuminous fluid may be

forced out: this has been termed the scirrhous ichor, or juice, and is regarded by many pathologists as a complete diagnostic sign of scirrhus. The enclosed matter adheres rather firmly to the fibrous septa. Scarpa, Travers, Lobstein, &c. affirm, that scirrhous tumours cannot be injected; Carswell states blood-vessels are rarely perceptible, while Cruveilhier and Müller maintain they may be discovered by accurate and close investigation.

Microscopically examined, the scirrhous mass will be found to consist of a fibrous and granular substance, the latter must be scraped or macerated away before the former is distinguishable. The remaining matter is of a grey colour, and consists of loosely connected microscopical formative globules or transparent hollow cells or vesicles, which are said to measure, ·00045 to ·0012 of a Parish inch in diameter, and are insoluble in cold or boiling water, or in acetic acid. In some of the cells minute granular points are recognized; in others, there are one or more good sized corpuscules like nuclei, each being supplied with a minute opaque nucleus.

Foy gives the following analysis of scirrhous matter:

Albumen	42,00	Carbonate of soda	5,00
White fatty matter	5,00	——— of lime	6,60
Red „ „	3,25	——— of magnesia	0,85
Fibrine	5,85	Hydrochlorate of potassa	4,10
Water	5,00	——— of soda	3,25
Oxide of iron	1,65	Tartrate of soda	0,85
Subphosphate of lime	16,60		

The chief peculiarities as compared with encephaloid matter, are, the less quantity of albumen

and fibrine, the absence of osmazome, and the higher proportion of inorganic salts; while, as in the analysis of encephaloid matter no gelatine is detected. In this respect, the analysis of Foy agrees with the observations of Müller. On the other hand, Morin, Collard de Maltigny, and Hecht, enumerate gelatine among the elementary principles of scirrhus. Casein has occasionally been discovered in the reticular variety of scirrhus.

Schirrus may be developed either in the form of a tumour, or it may be infiltrated in the substance of organs. These tumours are usually rounded, or oval, and flattened; their external surface is at first smooth, but, as the disease advances, it becomes lobulated and anfractuous. The infiltrated form of cancer is more frequently met with in the uterus than any other organ. When schirrous tumours are formed, they seldom acquire a very large size. Schirrus is more usually solitary, although occasionally schirrous tumours are met with in several parts of the same patient.

c. *Colloid Cancer.*

When a section is made of a colloid carcinomatous tumour, the surface will be found to be divided into a vast number of distinct alveoli, regularly arranged, of an oval or rounded shape; their size varying from that of a grain of sand to a large pea. The septa, which form the walls of these

loculi, possess fibrous characters, their thickness throughout is pretty uniform, broader in some situations than in others: sometimes the thicker septa give off productions which form the walls of secondary loculi, and these again form a third set. Sometimes the loculi are shut ones, in other instances they communicate with the circumjacent cells. In consistence this tumour is said to resemble firm cheese, and its divided surface is generally of a yellowish green colour. The contained matter is semitransparent, tenacious, and clammy, and is said to resemble soft jelly. It is not readily expressed from the containing loculi, but it may be picked out or separated by maceration. Colloid tumours are exceedingly uniform in every part of their surface; their firmness, transparency, &c., are as distinctly marked towards the centre as in the periphery. Both arteries and veins are stated by Cruveilhier to be found in a healthy and permeable state between the alveoli of the diseased mass.

When the minute cells are examined under the microscope, Müller states they are observed to contain several more minute cells inclosed within them, and these contain a tertiary order still smaller. The smallest ones have an opaque yellow parietal nucleus; many of them also contain free nuclei in their interior, as cytoblasts for the development of future cells. In two instances, Müller states he has discovered acicular crystals in the jelly of preparations preserved in alcohol, and, in one case,

caudate bodies. The gelatinous or jelly-like matter retains its transparency in preparations that are put up in spirits. No gelatine has been found by Müller in these tumours. Colloid cancer is generally seen in the form of a solitary tumour, or, in numerous small masses disseminated through the substance of an organ, or infiltrated in the tissues affected. These sometimes acquire considerable size, and are said to have attained the weight of several pounds.

Pathology. — Various theories have been propounded to explain the pathology of cancer; by some, as Adams, Carmichael, &c., an hydatid formation has been assigned to it. Broussais and his disciples attribute its formation to chronic inflammation. Dr. Copeland and Andral suppose it arises from an altered state of nutrition and secretion. Dr. Carswell believes that the matter of schirrhus exists "in the molecular structure on the free surface of organs, and also in the blood." Dr. Hodgkin has very ingeniously laboured to prove that the presence of a serous membrane or cyst, is necessary for the production of cancer; but, it is found that the carcinomatous structure is supplied with blood by vessels not belonging to the membranes or cyst. Cruveilhier regards all these organic transformations and degenerations as the result of the deposition of morbid products in the cellular elements of organs. Müller states the development of carcinoma proceeds on principles similar to those which

influence the development of normal embryonic tissues, that cytoblasts form cells, — that new cells are generated either inside or outside those of prior existence from a nucleus or granule, — that under certain circumstances, by flattening and elongation of their extremities, the cells are formed into caudate bodies, and these caudate corpuscules when placed in lateral and terminal juxtaposition, form fibres, — so by the persistent generation of cells, the bulk of each growth is sustained and increased.

Formerly it was pretty generally believed that cancers could be conveyed to an individual by means of infection or inoculation; but close investigation and experiments have proved the fallacy of such an opinion. I have for some years paid particular attention to this question, in order to ascertain whether the husbands of women affected with ulcerated carcinoma have been affected with that disease, and in no one instance have I been able to detect the supervention of cancer in the male: but although the disease is not capable of being so transmitted, I am of opinion that it is in many cases hereditary. I have seen several instances of mothers and daughters dying from this malady; and in one instance I traced the disease through three generations, the grandmother, mother, and daughter, all falling victims to cancer.

This disease occurs more frequently than at first thought we might be led to expect: the registers of the obstetric out-patients of Guy's Hospital show that the proportion of cases of carcinoma uteri to

cases of other uterine diseases is nearly as 1 in 7, or 13·5 per cent.

Subjects. — Females of the lymphatic temperament appear especially liable to the malady. Mental anxiety, the depressing passions, bad, indigestible food, unhealthy situations, wearying and exhausting occupations, may all be enumerated as predisposing causes.

Syphilis has been stated to be a fruitful cause of this disease; but I have not been able to find that prostitutes are more liable to it than females of undoubted chastity; in fact my records lead me to believe they are not so prone to become the subjects of carcinoma. Violence has also been stated by some writers to be a cause of carcinoma; and in same cases, especially where it has been applied to the uterus itself, it seems to give rise to the development of this distressing malady; but violence alone, without the existence of the cancerous diathesis, will not, in my opinion, produce carcinoma.

Some authors are of opinion that the disease is more frequent among virgins and those women who have never borne children; but my researches lead me to adopt the opposite opinion. In a paper published in the "Transactions of the Royal Medico-Chirurgical Society for 1839," I have stated that of 120 cases of carcinoma, unmarried women bore a proportion of 5·83 per cent., married women 86·6 per cent., and widows 7·5 per cent. This paper further shows that the number of children produced by 103 married and prolific women amounted to

596, or rather more than $5\frac{3}{4}$ children to a marriage. Since the publication of that paper I have tested its results by accurate registers kept of every case of carcinoma that has fallen under my notice, and am of opinion that the facts there stated are in the main correct. It must be, I think, frequently remarked, that upon close investigation, patients affected with carcinoma will in many instances be found to have suffered from derangement of uterine health in early life; and the most common malady under which they have laboured is congestive dysmenorrhœa. In the communication I have before referred to, which was laid before the Royal Medico-Chirurgical Society, it appears, that out of 120 women, only 25, or 20·8 per cent. had enjoyed good uterine health in early life; while 95, or 79·16, per cent., had suffered from (what is termed) functional disease, or syphilis. The most frequent malady was dysmenorrhœa, with which no less than sixty-six had been afflicted.

The proportions stand thus:—

	Per Cent.
Those who had good uterine health - -	20·8
Those who had suffered from amenorrhœa - -	15·8
" " vicarious menstruation	0·83
" " menorrhagia - -	1·66
" " dysmenorrhœa - -	54·16
" " syphylis - -	6·6

The period of life the most obnoxious to carcinoma of the womb is at the cessation of the catamenia, or between the 40th and 50th year.

Out of 409 cases of cancer of the womb quoted by Boivin and Dugès*—

12	occurred	under	20 years	of age.
83	from	-	20 to 30	—
102	from	-	30 to 40	—
201	from	-	40 to 50	—
7	from	-	50 to 60	—
4	from	-	60 to 70	—
409				

NECROSCOPIC APPEARANCES.

I have before me the recorded appearances found in nineteen women who died with cancer of the womb, and from them I have drawn the following summary.

External Appearances. — Eleven women are stated to have been emaciated; in one the emaciation was not particular, one was rather plump, and in one there was subcutaneous fat. Three are stated to have been pale, one sallow, and one exsanguine; one was anasarcous, and in two the legs were œdematous. In two the mammæ are stated to have been wasted, and in one they were small and soft. In one patient the skin was particularly hard, in one it was transparent, and in two moist and separated, without signs of putrefaction. In one there were petechiæ on the upper part of the chest and right fore-arm, and in one there was the appearance of a bubo in the groin.

* Boivin and Dugès, Trans. by G. O. Heming, Lond. 1834, p. 231.

Brain. — The brain was examined in but four cases: in two it was healthy; in one there was general serous effusion, and a cloudy arachnoid; in the fourth there was effusion under the arachnoid, and at the base of the brain, the brain itself being pale and firm. (In three of the four cases the kidneys and ureters were much distended.)

Pleura. — In two cases, the chest was not examined; in five the pleura was healthy, in four there were adhesions on both sides, — in three cases these were old, and in one recent. In four cases the adhesions were confined to one side, three occurring on the right and one on the left; one of them on the right side was of recent origin, the others were old. Effusion occurred in four cases, in both cavities; in two cases, the effusion was clear serum, in one it was sanguineo-purulent on the left side; in the other two cases there were two pints of serum on the left side, mixed with flakes of lymph, while on the right side the fluid was smaller in quantity and without lymph.

Lungs. — In two cases, the lungs were not examined. In two they were perfectly healthy; in four, they were crepitant; in five, emphysematous; in five, œdematous; in three cases they were pale; in three, turgid; in one case the right lung was soft and flabby, and the left healthy; in two there was chronic bronchitis; in three, hepatization; one in an incipient state; in one there were two or three tubercles; and in one there was an old cicatrix of the right upper lobe.

Pericardium.—In ten cases, the pericardium was found healthy; in five, there was effusion; in four of these the effusion was simple, in one there were the solid products of inflammation; in one the pericardium was thrown into loose folds. In the remaining four its state is not mentioned.

Heart.—In three cases the condition of the heart is not recorded; in twelve its state is said to be healthy, and of these four are noted as small; in one the heart was small and flabby; in one the edges of the tricuspid valve were thickened; in one the aortic valves were affected with senile change; in two cases the foramen ovale was open; in one the opening was valvular; in the other the opening was three times as large as a goosequill.

Abdominal Cavity.—In ten cases the state of the abdominal cavity is not mentioned; in one it is stated to have been healthy; in seven cases effusion had taken place; in two the effusion was pale clear serum; in one it was opaque, containing white flakes; in one, seropurulent, viscid, and ropy; in one puriform and creamy; in one it was dirty brown, containing shreds of lymph; and in one the abdominal cavity was divided by adhesions into several compartments, containing in some, turbid fluid, in others serous, in others puriform, and in others dirty brown fluid: in one case there were three small fatty tumours protruding like herniæ through the fasciæ; in one case, the aorta was diminished in calibre by the pressure of the diseased lumbar glands, and in another case

there was disease of the mesenteric and mesocolic glands.

Peritoneum.—In one case only is the peritoneum reported to have been healthy. In five cases there was universal peritonitis; in four of these, it was recent, while in nine cases it appeared to be confined to the uterus and neighbouring viscera; there were two cases of old peritoneal adhesions of the spleen, and one of the liver; in one case effusion had burst into the peritoneal cavity from the ovary; in one case, this membrane was of a greyish black colour, in another, it was sprinkled over with dark spots. In seven cases tubercles were found in the peritoneum; in three cases, these were found in the omentum. In one case the omentum was loaded with fat (the case where the uterus had been removed.)

Liver.—In eight cases the liver is stated to have been healthy; in one its condition is not mentioned, in four there were fungoid tubercles deposited in its structure; in one case it was granular; in one crisp; in two pale and fatty, and in two pale and flabby.

Gall-bladder.—In two cases the gall-bladder was found distended with dark viscid bile; in one case it was distended with calculi, and in one case it was empty.

Stomach.—In four cases, the appearance of the stomach is not mentioned, and in nine others it is stated to have been healthy. In one instance, it was preternaturally small, and in another case, the

right end was drawn downwards. In one instance the mucous membrane was lined by viscid mucus; in a second case, it was corrugated, and in a third, adherent to the muscular tissue. The colour of the mucous membrane, in two cases, was preternaturally pale; in another pale, stained with yellow spots; while in two instances the membrane presented a leaden or livid hue; in one instance, the glandulæ were particularly distinct and enlarged. Ulceration had occurred but in one case, and that at the cardiac orifice. In one case, the muscular coat was indurated, while, in another it had contracted so as to produce an hour-glass contraction of the stomach.

Small Intestines. Duodenum.—In one case, the mucous membrane was corrugated, thickened, and reddened. In one it was pale, the glands being particularly prominent, and in two cases it was of a grey colour, from an innumerable number of black points.

Ilium and Jejunum.—In one case, a loop was impacted behind the uterus by adhesions; in one case, the mucous membrane was pale, from the deposition of innumerable black points; in one it was corrugated, thick, and reddened; in one it was pale, with the aggregate glands roughened; and in two, there was deposition of fungoid tubercles.

Large Intestines.—In one case the Colon and Cæcum were unusually distended by fæculent matter; in one, the sigmoid flexure was inordinately contracted. The mucous membrane, in one

case, was pale; in a second, dusky; in a third, soft and separable; in a fourth case, was speckled with ulcers; and a fifth had fungoid tubercles deposited beneath it.

Rectum.—In one case, there was great hypertrophy, particularly of the muscular coat. In one case ulceration had occurred, laying the bowel and vagina into one cavity; in one case, the mucous membrane was highly vascular and carcinomatous; in a second, sloughing but not ulcerated; and in a third case, had fungoid tubercles deposited beneath it.

Kidneys.—In two cases the state of the kidneys is not mentioned, while five are reported as being healthy. In two instances the kidney was atrophous. In two, the tunica propria was thickened and indurated: in one case the cortical substance had numerous hard depositions in it; in another, it was infiltrated with pus. In eight cases, the mammillary processes, infundibula and ureters, were dilated and distended with urine. In one case there were fungoid tubercles under the peritoneum.

Bladder.—In two cases the bladder was found distended with urine; in two, the shape was unnatural, from compression; in two instances the coats were hypertrophied; in one case, fungoid tubercles were deposited between the membranes; in one there were cells of pus anterior to the peritoneum. In four cases the lining membrane was livid; in one case inflamed, in two ulcerated. In one instance the urine was albuminous (the kidneys

large and pale); in another it was yellow, turbid, and puriform.

Urethra.—In one case the urethra is stated to have been thick and vascular; in another, ulceration had taken place into the vagina.

Spleen.—In three cases the condition of the spleen is not mentioned, and in six it is stated to have been healthy: in one case it was very small, in another shrivelled; in two cases fungoid tubercles were deposited in its structure. In one case, the colour was pale; in one mottled, in one dark, and in two lilac; in two instances there was a great softness of the structure; the proper tunic, in one case, was thickened and adherent.

Pancreas.—The pancreas was natural in eight cases; in nine, its appearance is not mentioned; in one there were fungoid tubercles deposited, and in another the structure was flabby and yellowish.

Uterus.—In one case the uterus had been removed twelve months before the patient's death; in but one case was the body of the uterus healthy in appearance. In five the uterus was considerably enlarged; in five there was hypertrophy of the parietes. In one case, they were preternaturally thin; in two cases there was induration; in three, degeneration, from the infiltration of soft tubercular matter. In four cases there were hard tubercular deposits, varying in size. In one case the parietes were gangrenous, and in one they had partly sloughed away.

Cervix.—In two cases the cervix was enlarged and hardened by tubercular deposit. In two, the

cervix had entirely sloughed away; in two, the greater portion was removed, and in one ulceration had commenced.

Os Tincæ.—In one case the Os Tincæ was enlarged and hardened; in five cases, had completely sloughed away; in two cases, was extensively removed; and in six, ulceration had occurred.

Cavity.—In two cases the lining membrane was raised by a fungoid mass; in two instances its colour was red; in five it was livid, in four ulcerated, and in one it was natural. Its condition in the other cases is omitted.

Uterine Appendages. Ovaries.—In two cases the ovaries were pale and atrophied; in two they were small and nodular; in four cases they were affected with fungoid tubercles. In two, they were affected with the formation of cysts, and in one of these a sinus communicated with the rectum; and, lastly, the structure of the bodies was extremely soft, and, in one instance, lacerable.

Fallopian Tubes.—The Fallopian Tubes in one case were thickened and distended by tubercular matter; in another instance they were atrophied.

Ligaments.—The round ligaments were in one instance affected with the tubercular deposit, and in one case there was a thin simple vesicle formed in the broad ligaments.

Vagina.—In two cases induration of the vagina was present; in one case tubercles were deposited under the mucous membrane; in one, the tube was dilated by a fungoid growth. In eight cases ulce-

ration of the vagina had taken place; in one instance opening a communication between the urethra and vagina, and in the other forming a recto-vaginal fistula of some extent.

Pelvic Cavity.—In six cases the pelvic contents are stated to have been glued together. In thirteen cases the glands were enlarged, and in many instances cerebriform. In two cases the pelvic veins were obstructed; in one by coagula, in the other by calculi; and in another case—that of the female whose uterus had been removed prior to death—there were many fungoid tubercles interspersed among the pelvic fat.

SYMPTOMS.

I shall treat of the symptoms of cancer of the womb under its different stages: 1. The incipient; 2. The stage of scirrhus; and, 3. The stage of ulceration.

a. *Symptoms of the First, or Incipient Stage.*

The patient may experience only comparatively slight and transient attacks of pain, or perhaps only sensations of uneasiness referred to one or other iliac fossa, or in the situation of either ovary, there may be a decided fulness or a distinct tumour tender to the touch, or the pain may be referred to the os uteri, accompanied with tingling sensations along the front and inside of the thighs, lasting for a few

hours or days, and then disappearing, absenting itself for weeks, and then returning. Occasionally, sexual congress is attended with pain, and followed by a slight show of blood. Generally there is some slight irritability of the bladder, and frequently the irritation about the rectum and anus is of such a nature as to cause the patient to suspect she has piles. The catamenia are generally regular in their appearance, although occasionally their order is disturbed, or they may be mixed with blood. Leucorrhœa is by no means constant in the intervals. The appetite remains good, digestion is well performed, and the patient makes no complaint of want of sleep until the disease has lasted for some time. The pulse at first is generally regular and of full volume; and it is not until the disease has existed for a considerable period that the appetite becomes impaired, the sleep disturbed, the flesh becomes flabby and wastes, and the countenance becomes pallid and indicative of serious organic mischief.

If an examination be made "per vaginam," the edge of the os uteri is found hard, sometimes fissured, and of irregular form, projecting more than usual into the vagina. Several small, hard, and defined projections are felt in the situation of the muciparous glands, giving the finger the feelings of grains of shot or gravel under the mucous membrane. If pressure be made firmly upon these, the patient will complain of pain and sickness. The cervix uteri is frequently enlarged and indurated.

The os uteri is turgid; and if a speculum be employed, it will be seen to be of a deep crimson colour; but the projecting shot-like points have a bluish hue. There is scarcely any thickening or other alteration of structure in any part of the vagina, the uterus is generally moveable, and the disease appears to be confined to the os uteri and lower part of the cervix.

This stage of the disease is in many instances very slow, lasting sometimes for years, until these granular bodies acquire greater volume by the further increase of the morbid action, when they give to the part the unequal, bumpy, and knobbed condition which indicates

b. *The Second Stage, or that of Scirrhus.*

In this stage the symptoms arising from increase of the weight of the uterus are very distressing. The organ descends to below its natural level in the pelvis; there is uneasiness in standing or walking, weight upon the perineum, sometimes a feeling of irritation upon lying upon one of the sides; there is some distress in passing the motions, and frequent desire to pass the urine with an increase of mucous discharge from the bladder. The pains are greater than in the first stage, and are more lancinating. The discharge from the lining membrane of the uterus is increased; but it is of a bland character, and has none of the fœtid and and acrid qualities which are seen in the third

stage of the disease, or where ulceration has taken place. Blood is occasionally mixed with the discharges, but it is more usually seen mixed with the catamenial secretion. Occasionally the patient has œdema of the lower extremities.

Examination "per vaginam" will detect the cervix and body of the organ to be tumefied and hard, and the margin of the os uteri to be notched in two or three places without breach of surface. The mouth of the womb is rather more open, the lips are rigid, and firm pressure causes pain. The uterus is not so moveable as in the first stage; but it is seldom fixed in the pelvis until the commencement of the third stage. Just previous to ulceration taking place, if careful examination be made, we shall find that some part of the tumid and indurated viscus is softer than the rest; at this spot ulceration will occur, and considerable pain will be caused when the examining finger makes pressure.

Using the speculum, the cervix appears to be swollen, tense, and shining, sometimes spongy, of a deepish or brownish colour.

This stage of the disease lasts a longer or shorter time, depending upon the strength of the patient's constitution and the nature and amount of the remedies employed. These too often impair the general health and destroy the appetite, the patient becomes dyspeptic and suffers from cardialgia; and not unfrequently urticaria occurs, as a very troublesome symptom.

c. *The Third Stage, or that of Ulceration.*

This is marked by an increase in the pains, which are of a very lancinating nature; sometimes they are described as "burning," in other cases as "gnawing:" in a very few cases little or no pain is complained of. When pain is present, it is generally more aggravated during the night, probably increased by the warmth of the bed: the course of the pains is through the womb to the pubes and loins down to the anus and thighs.

Sometimes the pains occur in paroxysms, once, twice, or thrice during the day, and lasting for some hours: they may take the course of either the sciatic or crural nerve. Sometimes they fix upon a distant part, as the foot, and never attack the pelvis. The discharge of blood which might have been occasionally mixed with the leucorrhœal discharge or with the catamenia is the first indication of ulceration; in fact, it generally precedes the increase of pain, and is the first circumstance that causes alarm in the mind of the patient. Some women have been known to regard this hæmorrhage as a favourable system, and have looked upon it merely as a change in the constitution, viewing it as a return of the menstrual secretion. The amount of blood lost is occasionally very large, especially at the early stage of ulceration, which appears to be in some degree checked by the occurrence of the discharge, the returns of which are more frequent at the commencement than towards

the close of the ulceration. Before ulceration commences the discharge between the menstrual periods has been little more than leucorrhœa; but as soon as this organic change takes place, its odour becomes fœtid, its colour becomes dark brown, dirty white, green, or black, usually tinged from a slight admixture of blood; and it is then secreted very copiously, occasionally containing flocculi of lymph or coagula: it slightly effervesces with sulphuric acid, and turns syrup of violets to green. Its acidity frequently causes the inner surface of the labia to be very tender; and the orifices of the vagina and anus are frequently excoriated, which excoriation in many cases extends down the thighs. As the dysuria becomes developed, or increases, there is an admixture of mucus with the urine; the urethra and meatus urinarius become thickened, which still further increases the irritation, in some cases amounting to retention of the urine. As the disease advances, the ulceration may extend to the bladder or rectum: the latter is more frequently attacked than the former, owing to its proximity and to there being but a small quantity of cellular web between the parts. Previous to ulceration of the bowels taking place the patient will have great difficulty and pain in going to stool: this is partly owing to the forcing of the abdominal viscera down upon the diseased mass in the pelvis, and partly to the pressure of the fæces themselves in their passage through the rectum.

The patient's pulse is quick, small and wiry,

there are febrile attacks accompanied with nocturnal perspirations, diarrhœa, and night-watching. The skin is yellow, parchment-like, and shrivelled, sometimes during the day it is hot and dry.

The patient becomes greatly emaciated, the muscles waste, the eyes become sunken, the countenance has a sharp distressed expression, the features are drawn upwards and become very prominent. The appetite is either greatly diminished or ceases altogether, digestion is greatly impaired, there is nausea, frequently vomiting, sometimes intense thirst, diarrhœa not unfrequently alternates with constipation, the tongue becomes glossy, and dry; occasionally, it is sore; sometimes there are patches of aphthæ in the mouth, as well as in the vestibulum, and around the anus. Occasionally patients die with the symptoms of quiet stupor, so admirably described by Dr. Addison in the 4th vol. of the Guy's Hospital Reports. In such cases we find some impediment to the secretion of the urine, and in many instances, the bladder will be found distended, its evacuation being prevented by mechanical causes, as the pressure of a fungus, &c.

Examination "per vaginam" enables us to detect a hard irregular immovable mass, filling the pelvis, and about its centre the os uteri, which is more open than natural, its edges being thickened and ulcerated, the ulceration may extend completely round the cervix, or the anterior or posterior half alone may be affected and extend ultimately to the bladder or rectum; the ulceration is generally tender

upon pressure, and the examining finger when withdrawn is covered with fœtid sanies, frequently tinged with blood.

Sometimes a fungoid growth projects from the os uteri: this is rough, unequal, and tender, and it is found that the tumour springs from an ulcerated surface, and will in its turn also become the subject of ulceration. In some cases the disease extends to the vagina, and then the inguinal glands become enlarged. This canal becomes rough, and unequal. In cases where there is a fistulous communication with the bladder a large quantity of earthy matter is deposited upon the rugæ of the vaginal mucous membrane. If the speculum be employed, which the great pain caused by the introduction of the instrument in many cases interdicts, the ulcerated surface will be found of a greyish colour, occasionally dark brown, the edges being irregular and unequal.

Prognosis. — If the disease have passed beyond the first stage, the prospects of the patient are decidedly of the most unfavourable kind. If it be known to be in the first stage, I am of opinion with Dr. Montgomery, " that something may be done to stem, at its source, the torrent of agonies that will otherwise overwhelm the patient, nay, I firmly believe it may in many instances be altogether turned aside and the victim rescued from the sad fate impending over her." But if the disease have progressed to the second stage, there is no hope of cure, and but little, if any, decided mitiga-

tion of the agonies endured by the patient. The length of the disease, will, in all cases, depend upon the strength of the patient's constitution, the amount of the losses of blood, the extent of the discharges, &c., but at length, the patient will either die of exhaustion, of peritonitis, enteritis, or cerebral effusion. To use the oft quoted words, "temporary relief can be found only in opium, and permanent rest only in the grave."

Duration of the Disease. — In the report of the 120 cases previously referred to, the average duration of the disease was $20\frac{1}{4}$ months. The shortest duration was 3 months, the longest 66 months. In single women the average duration of life was 21·66 months; while in married women, who had borne no children, it was 21·3 months.

Diagnosis. — The first stage of cancer is frequently mistaken for, 1. *irritable uterus;* but a careful and close investigation must detect the error; for although in cancer the uterus is sensible, when an examination is instituted, and particularly when those shot-like bodies are pressed upon, still there is not that exquisite tenderness and pain which are observed in irritable uterus: besides, the granular or shot-like bodies deposited in the seat of the ova nabothi, the change of structure, swelling and induration will enable us to frame an accurate diagnosis.

This early stage of cancer is not unfrequently mistaken for, 2. *stone in the bladder*, or *gravel*, because derangement of the functions of that viscus is the

first prominent symptom. A careful investigation of the case, and especially an examination, will detect the real nature of the disease. The second stage of the disease may be recognised from

3. *Simple induration* of the os and cervix by its being less red, less turgid, and the heat of the parts being also less. In scirrhus the hardness is greater and more lobulated, the deposition into the surrounding tissues is also greater, and, as the disease advances, the uterus cannot be moved so readily as in simple induration.

4. *From fibrous and hard tumours* it may be known from its being more lobulated, less defined, there being more pain; and ultimately, the symptoms and tactile signs of ulceration.

5. *From early pregnancy* by the absence of the symptoms of pregnancy, by the hardness of the womb, the chronicity of the disease, the continuance of menstruation, &c.

6. *From moles, hydatids, &c.* by the greater hardness in scirrhus, by the induration of the cervix, and by the termination of the disease.

The third or ulcerated stage of the disease may be known from

7. *Simple ulceration of the os and cervix uteri* by the nature of the constitutional symptoms, the fœtid character of the discharges, the depth of the ulceration, the surrounding hardness, and by the immobility of the uterus.

8. *From corroding ulcer* it may be known by the immobility of the uterus, by the entire loss of

structure in the corroding ulcer, and by the filling up of the pelvis with morbid deposition in cancer.

9. *From syphilitic ulcers* it may be distinguished by the severe pain, the depth and irregularity of the ulcers, the morbid deposition, and immobility of the uterus, and by the untractable nature of the complaint.

Treatment—First Stage.—As there is in most cases some turgidity or congestion in the organ, it is well to commence our treatment by the local abstraction of blood. This may be effected either by cupping or by applying leeches to the mouth of the womb, or as near as possible to the organ. To be of service, the leeches should be repeated frequently, and accompanied by the employment of anodyne injections, as Dec. Papav., Conii, &c. Having commenced the treatment by the local abstraction of blood, mercury should be given in small doses, until the system is brought under its influence, this should be carried far enough to produce a decided, although gentle, effect: for this purpose it may be combined with opium, hyoscyamus, conium, or camphor. The combination of mercury with iodine, as they coexist in the milder pharmacopœial preparations will be found of great value. If there be evidence of inflammatory action in the iliac fossæ, Dr. Montgomery recommends the introduction of mercury by friction. When the system has been brought decidedly under the influence of the mineral, iodine or iodide of potassium may be given to assist in the improvement of

the general constitutional symptoms, and in the removal of the disease. A combination of iodine and iron is very highly recommended by some practitioners, but so far as my experience has gone, it does not equal the preparations of arsenic, which give great relief whenever there is pain in the uterus, arising from, or associated with, organic disease. The Liq. Potass. Arsenitis given in doses of from ♏ v. to ♏ viij. three times a day in some bitter infusion, will in many cases be found to lessen pain, restore the tone of the system, and improve the patient's constitutional powers. As auxiliary measures, the warm hip-bath and counter-irritation must not be lost sight of. Counter-irritation may be produced by means of a blister, or a succession of blisters; but it produces its greatest effect when employed through the instrumentality of an issue over the sacrum, or either sacro-iliac synchondrosis. Every thing that has a stimulating tendency, as equestrian exercise, dancing, attending crowded assemblies and parties, and especially sexual intercourse, must be avoided; even wine should be of the mildest nature, and sparingly taken, while strong ale or porter should be entirely prohibited. The diet should consist of the lightest and most easily digested articles of food.

Case XXXIV. M. A. B., aged 45, has borne several children, with natural labours. She married at the age of 21; since her marriage her health has

been good, but previously she suffered considerably from dysmenorrhœa. Her health has been failing for ten or twelve months; her catamenia have been irregular in their appearance, and at times profuse, and in the intervals there is a thin yellowish discharge. She complains of pain in the womb, shooting into the back, and coursing down the inside of the thighs. She suffers much pain during connexion, and the act is generally followed by a discharge of blood. Upon a vaginal examination, the os uteri was found to be gaping, tumid, and notched, and within its margin several small hard nodules could be felt: when these were pressed, she complained of considerable pain. The body of the uterus and vagina appeared healthy. Upon using the speculum, the os uteri was seen to be turgid, and the nodules were of a bluish livid colour.

She was ordered to have the mouth of the womb scarified twice a week, and to take the following:—

℞. Hyd. Protiodid. gr. $\frac{1}{8}$ nocte maneque in formâ pilulæ.
℞. Pot. Iodid. gr. iv. Ext. Sarsæ ℈ss, ter die in mist. camph.

At the same time, freedom from all excitement, especially sexual, was enjoined, and her diet was to be of the blandest description.

She persevered in this plan of treatment for a month, when her mouth becoming tender, the morning pill was discontinued, and after several months' further treatment, she was perfectly restored, the os uteri giving a normal sensation to the examining finger. This change took place gra-

dually, and was remarked, time after time, when the vaginal examinations were instituted.

Treatment of the Second Stage.—In the treatment of the second or scirrhous stage of cancer, our endeavours should be chiefly directed to maintain the patient's constitutional powers, and to put off, as far as possible, the occurrence of ulceration. All circumstances that have a tendency to depress the strength, or harass the mind, must be avoided. If there be rigidity of the os and cervix, blood may occasionally be extracted by cupping, or by leeches to the vagina; but, at the same time, due and efficient care must be paid that the quantity of blood lost is not so great as to injure the patient. Counter-irritation has also been recommended for this form of the disorder. This may be tried by the application of a blister to the loins, or the insertion of a seton in the thigh. Iodine has been recommended by Wagner *, Copeland †, Ashwell ‡, and others. Iron, arsenic, &c. will be found of great service. Arsenic I have used very extensively, and have reason to be satisfied with its "modus agendi." The bowels must be kept free, and for laxatives the best are the saline purgatives, because they cause fluid stools. Leake, in his "Diseases of Women §," recommends vaginal injections containing lead, and, at a more advanced period, narcotic

* Revue Medicale, June, 1823.
† Dictionary of Practical Medicine.
‡ Guy's Hospital Reports, vol. i.
§ Diseases of Women, p. 124.

enemata. Hip-baths may also occasionally be of service. The patient's diet should be spare. She should be warmly clothed to keep up the cutaneous circulation; and if urticaria make its appearance, it will be relieved by an occasional purgative of rhubarb and magnesia in some bitter infusion. Various remedies have been recommended by medical men, and each is loud in praise of his favourite remedy. Gessner, Girard, Hüfeland, Hahnemann, Thilenius have recommended conium alone, or in combination with alkaline tonics; Brisbane and Walther, electricity and galvanism. The muriate of baryta is extolled by Hüfeland; Rowley and Dowman recommend antimonials; Greding, the aconite; Mayer, digitalis; Thilenius, laurel-water. Mercury, especially the corrosive sublimate, is extolled by Ruysch, Thilenius, and Harris. The hydrochlorate of ammonia, by Justamond; the belladonna, by Gataker; and the mezereon, by Home.* The objects, however, that I have always in view in treating this stage of the disease is, 1st, To lessen congestion by local depletion. 2dly, To relieve, as much as possible, the mechanical pressure by position; attention to the bowels, &c. 3rd, Supporting the constitutional strength, and relieving suffering by the combination of anodynes and tonics. And, lastly, endeavouring to promote the absorption and removal of the organic deposit by the exhibition of iodine. In the external application of

* Churchill on the Diseases of Females, p. 241.

iodine, as recommended by some writers, I have no faith ; and in some instances, where the ointment has been rubbed upon the os uteri, I have seen the friction hasten the stage of ulceration.

Treatment of the Third Stage, or that of Ulceration. — The rapidity with which the second stage passes into that of ulceration will be found to vary greatly, depending upon the difference of the patients' constitutions, and the use or abuse of local remedies, with the idea of effecting a cure. When ulceration once occurs, its progress will be found also to vary in different cases, rendering the treatment not only more difficult, but less effective.

In this stage, the discharges that take place so greatly depress the patient's constitutional powers, that the detraction of blood by leeches, or any other means of depletion, will do harm. Counter-irritation by means of blisters, issues, setons, stimulating, rubefacient liniments, the oils of cajeput, croton, &c., have been tried by me; but the only objects that we are likely to attain, and to the fulfilment of which we should direct our best endeavours, are, alleviation of the patient's sufferings, and maintaining as far as we can, the general strength. In some cases, other symptoms arise; as those of inflammation of the peritoneum, &c., which call for an alteration of treatment; but in such cases the mildest measures must be resorted to, for if the treatment be too heroic, our patient's powers will soon be exhausted.

For the purpose of alleviating the patient's suf-

ferings, narcotics are decidedly of the greatest utility; they may be given internally, or they may be administered externally, in the form of injection or suppository. At first it is better to use those that are milder, as they very soon lose their anodyne effect; and then we can resort to those of a more potent nature. Hyoscyamus, Conium, Stramonium, Belladonna, the various officinal preparations of Opium, Morphia, Battley's Liq. Opii Sedativus, &c., are the medicines that are employed with the view of alleviating the dreadful sufferings of the patient, which generally increase towards night, and consequently demand a dose to be exhibited before she retires to rest. Dr. Montgomery* speaks highly of the Acetum Opii, and states that it answers best when given in the form of an effervescing draught, or combined with cinnamon water and syrup of ginger. Narcotic remedies may also be employed in the form of suppository. The Pil. Saponis cum Opio may be introduced into the bowel every night, and its effects are generally satisfactory. The Extr. Papav. ʒij. to oj. of warm water, may be used as an injection, the patient being at the same time cautioned respecting the introduction of the pipe of the syringe, lest she produce hæmorrhage. There are two disadvantages that result from the employment of powerful narcotics; one is constipation, and the second is loss of appetite; to obviate the former, the patient must occasionally

* Dublin Hospital Reports, vol. v.

take mild aperients, as Castor Oil, Confect. Sennæ, Rhubarb, &c., or she may have recourse to the Enema Saponis, or the Enema Ol. Ricini; while, in order to obviate the second unpleasant effect, mild stomachic tonics, as the Infus. Aurantii, C. Cascarillæ, Calumbæ, &c., may be resorted to. To effect this purpose, as well as to lessen pain, in my experience, arsenic is of great value. The preparation I have employed is the Liq. Pot. Arsenitis. Justamond, Stark, Ruysh, Fircher, Roussner, Michaëlis, Hill, &c., are also loud in its praise. The second object, that of maintaining the patient's strength, will be best accomplished, not only by giving her the greatest quantity of nutritious food in the smallest possible compass, but also in using our best endeavours to lessen the amount of the discharges, and to alleviate the distressing sickness which not unfrequently increases the patient's sufferings. To lessen the discharges, various injections have been resorted to: the Decoction of Carrots, the injection of Nitric Acid ♏x. to ℥j. of water; of Acetate of Lead ℈ss. to oj.; of Acetic Acid ℥ss. to oj.; or the stronger injections of the Sulphates of Alum, Zinc, Copper, Iron, or the Decoctions of Tormentil, Oak Bark, &c., may be employed. I have frequently seen considerable benefit derived from the employment of injections of the nitrate of silver, in the proportion of gr. x. to ℥j. of distilled water; they seem to remove the fœtor, and, at the same time, to lessen the irritability of the affected parts. The fœtid smell of the discharges may also

be corrected by the employment of diluted solutions of the chlorides of soda or lime. If the hæmorrhage be excessive, we must arrest it by the application of cold to the external parts, and the administration of astringents by the mouth; at the same time enjoining the patient to take absolute rest. If this be ineffectual, the plug or tampon must be employed; but the greatest tenderness and caution should be used in its application. Some practitioners have recommended the acetate of lead to be applied to the surface of the ulcer, in order to restrain the hæmorrhage; but of the success of such an application I have had no experience. Independent of their soothing or astringent effects, the employment of injections is beneficial for the sake of cleanliness, in removing the discharges, and preventing the excoriation. The distressing sickness which so frequently accompanies the latter stages of this disease is relieved by applying lint soaked in Vin. or Tinct. Opii, over the region of the stomach, and in administering to the patient either the Vin. Opii, or Confect. Opii, in spearmint water. Some writers, as Boivin and Dugès *, Naüche † Lisfranc ‡, Dupuytren, &c., have recommended the application of caustic to the ulcers at an early period; this practice I have adopted in several cases, but the results have not been such as

* Boivin and Dugès on Diseases of the Uterus. Translated by Heming, 1834.

† Mal. prop. aux Femmes, vol. ii. p. 616.

‡ Mal. de l'Uterus, p. 345.

to warrant me in speaking favourably of the practice; and it seems that a local application can be but of little avail when malignant deposition occupies the substance of the uterus or the neighbouring organs. The attention of the physician should be directed to the daily evacuation of the urine, as in some cases it is apt to accumulate, and give rise to stupor, which gradually merges into coma, insensibility, and death.

The following case is one example of almost sudden death, occurring in a patient affected with encephaloid cancer of the womb, during the progress of which phlebitis became developed. Three or four similar instances have fallen under my notice.

Case XXXV. "Ann Avery, aged 34, a married woman, has given birth to seven children; all the labours natural. Her health was good up to the period of her last confinement, in August, 1842; but from this time she never completely recovered her health. Three months after her accouchement, she experienced certain symptoms which induced her to believe herself again pregnant; in a short time a discharge supervened, which she likened to a "shew;" this soon became profuse, and has continued ever since, more or less in quantity, and varying in colour and consistence, always increased by exertion, and at first accompanied by pain and bearing down. At the time of menstruation, this discharge increases to flooding, and is accompanied

by many coagula. Formerly these were expelled with much suffering, the pains resembling those of labour, but of late they have not recurred. Her strength is much reduced; and though formerly a stout and strong woman, she is now much emaciated, and very weak. She occasionally suffers much obtuse pain in the left iliac region, passing round the loins. The glands in the groin are somewhat enlarged; she is able to walk about without inconvenience, suffering no pain or bearing down while doing so, and she in general feels herself better when up and dressed than when in bed. Her pulse is quick and feeble, her appetite good, and she sleeps at night."

Upon instituting a vaginal examination, the os and cervix uteri, together with the upper part of the vagina, were pronounced to be affected with encephaloid cancer.

April 12. She was ordered:

Julep. Ammoniæ. ʒjss. Tinct. Conii, ʒj. ter die sum.
Lot. Sod. Chlorid. freq. injiciend.

On April 24th. The report is, "she complains of much pain and stiffness up the left arm and shoulder, and side of the neck, with great tenderness, and some swelling in the course of the veins. Her tongue is furred, her pulse quick, appetite bad, and she complains of great thirst." Fomentations were ordered to be constantly applied.

25th. The whole arm and shoulder are very much swollen, and extremely painful and tender, especially in the course of the veins, which feel

hard and knotted. The constitutional symptoms are much the same.

℞. Hyd. Chlorid. g. j. Pulv. Opii, g.j. hâc noctè in formâ. Pil. et P. c.Fot.

26th. She seems better to-day: the parts are still very much swelled, but not so painful, and the constitutional symptoms have much abated.

Rep. Pil. et P.

29th. Better: the arm is now but slightly œdematous, but there is much hardness left in the course of the veins.

May 1st. The arm is of its natural size.

℞. Lin. Tereb. C. bis die illinend.

5th. She is much improved in every respect; her appetite is good, her tongue clean, and her arm is restored to its use, although there is still much cord-like hardness.

7th. To-day she complains of slight pain and tenderness about the right internal malleolus; but upon using the Lin. Tereb. C. to the part for two days the pain entirely ceased.

11th. This morning she complains of great pain and tenderness in the right thigh, in the course of the saphena major, with slight œdema, and hardness in its course. Her countenance is much changed, and expressive of great anxiety, her pulse quick and feeble, and she is altogether much worse. In the evening about six o'clock her bowels were moved, and immediately after, she became rapidly worse, and expired within one hour, apparently in a state of syncope.

For the following accurate account of the *post mortem* appearances, I am indebted to Mr. Hilton:

The body was examined about eighteen hours after death.

HEAD.—The head was not examined.

CHEST.—The lungs were apparently healthy. The pleuræ contained small quantities of fluid; that on the right side being sanguineous, that on the left clear.

The pericardium contained about ʒvj. of straw-coloured rather opalescent fluid. The muscular fibres of the heart were very pale, and the cavities of both sides were completely filled with very firm black coagula, without separation of fibrine, and moulded to the form of the cavities.

ABDOMEN.—The liver was congested, dark venous blood exuding on incision, and the lobules were congested in their centres.

The gall bladder contained four calculi, the size of small marbles, and mulberry-like on their surface, of a yellow colour, and crystalline structure.

The kidneys were pale, very serous blood exuding on incision, but they appeared otherwise healthy.

The appendices epiploicæ of the colon, in contact with the uterus and ovaries, were pale, corrugated, and the seat of malignant deposit.

The fallopian tubes were adherent to them, and a long pedicle, with a vesicle the size of

a small marble, at its extremity, passed through a loop formed by these adhesions, through which it played as through a pulley.

The ovaries were large, and somewhat contracted.

The os and cervix uteri, and upper part of the vagina, and neighbouring cellular tissue, were one mass of fungoid disease, some parts of which presented almost the hardness of scirrhus, while others, especially that projecting into the vagina, were softer and more cerebriform.

The lumbar glands on either side were much enlarged, and cerebriform, surrounding the aorta, vena cava, &c. A large gland, the size of a small egg, was pressing closely upon the external iliac vein of the left side.

The descending aorta was remarkably small, not admitting the little finger, being encroached upon on both sides by the diseased lumbar glands.

The spermatic veins were very varicose, and on the left side the return of blood was impeded by the partial pressure of the lumbar glands upon the vein near its renal extremity. They were filled with clot and a fibrinous cylinder, which was adherent to the coats of the vessels. The left basilic, brachial, axillary, subclavian, and lower part of the external jugular veins were all filled with cylindrical coagula adherent to their parietes, laminated with irregular layers of fibrine and red particles, the centres of some parts softened into a semi-fluid,

grumous substance. This well-marked ante-mortem coagulum extended into the first inch of the thoracic duct, occupying it completely, so as to prevent the passage of the chyle in the duct, which was found dilated irregularly, giving it a varicose outline in the posterior mediastinum. In some of the dilatations were seen tolerably firm chylous clots, having a delicate cellular aspect, the meshes occupied by a milky fluid: the abdominal extremity of the chyle duct was very much dilated and distended with lymph.

During life some blood was taken from a vein in the affected arm and submitted to a microscopic examination by Dr. T. Williams, who has furnished me with the following report: —

"The red corpuscles alone presented indications of morbid change. The particle was paler and more distended than natural; the distension could be estimated by the degree to which the *central* depression had been obliterated. The aggregation of the corpuscles into 'rouleaux' very imperfect; numerous single, isolated, red particles floated through the field, manifesting not the slightest attraction for each other; the single and detached corpuscles more distended and less coloured than those grouped in 'rolls;' not the least motion could be observed in the 'rolls.' This aggregative attraction ceased within a period of half an hour, when the corpuscles resolved themselves into separate and passive objects. No change could be detected in the colourless corpuscles: in number

there appeared fewer than ordinary. Examined on a small scale; the coagulability of this blood was found to be slow: *no pus globules or any other morbid element could be observed.*"

Dr. Williams makes the following addition to his microscopic report:—

"The questions of greatest interest which the microscopic examination of blood, under conditions similar to those of the present case is calculated to suggest, relate principally to the red particles. In all the examinations of morbid blood which I have recently made, the condition of imperfect grouping of the red particles and deficient coagulability in the fibrine, were constantly found to be coincident facts. This circumstance seems to establish that the vitality of the red corpuscles, as measured by their *attractive* influence, is synonymous and identical with the vital or contracting force of the *fibrine*: when *this* coagulates flabbily, *those* roll together imperfectly; it proves that the organic fluid which the blood cells contain must be intimately similar to the Liquor Sanguinis; that the degree of health or vital force which this possesses determines the amount of aggregative force between the particles. The obliteration of the central depression in the particles, and their uniformly *coloured* aspect, probably result from the endosmosis of the liquefied contents of the *outer* cell into the cavity of the *inner*. This circumstance must greatly diminish the efficiency of the corpuscle as a *carrier* of oxygen, since the object having, under

natural conditions, the colouring material, as a coating to the circumference of the cell, appears to be the facilitating, the combination of oxygen with the iron, impregnating its fluid contents."

It will readily be seen that the remedies and method of treatment I have recommended are mostly palliative, and not fitted or designed to remove the disease; but to accomplish this object, two operations have been recommended and put into practice: one, the removal of the whole of the diseased organ; and the other, the excision of the os uteri, the latter being employed in those cases only where the disease is confined to the os and anterior part of the cervix uteri; and to the consideration of these two important and serious operations I now turn.

1. Extirpation of the Uterus.

Several instances of the successful removal of the inverted uterus by the ligature and by the knife having been recorded, it was thought that the removal of the organ in ulcerated carcinoma might be accomplished without any very great difficulty, and with reasonable chance of success. Paletta, I believe, was the first who performed this operation; but not with the intention of removing the whole of the organ, for he thought he had removed merely the cervix uteri. The operation has since been performed twice by Siebold, once by Sauter, once by Holscher, four times by Dr. Blundell, once by

Barnes, once by Lizars, three times by Recamier, thrice by Langenbeck, once by Dubled, and once by Delpech. Of these nineteen patients, sixteen died in consequence of the operation, or 84·21 per cent.

The strongest advocates for the performance of this operation recommend those cases only to be selected where the disease is strictly confined to the uterus, where the organ is free and moveable, where the neighbouring parts are not affected, and where the ulceration is recent. Those cases in which there is an enlargement of the pelvic glands, the ovaries, bladder, or rectum, should be rejected as unfit for the operation; there must be no organic disease of these organs, nor must the operation be attempted at an advanced stage of the disease where the ulceration is extensive, and where there are marked symptoms of cancerous hectic.

Method of Operating. — The patient's bladder and rectum having been previously emptied, Dupuytren and Recamier* recommend that the uterus should be drawn down to the vulva, in order to facilitate the operation. Gendrin†, on the other hand, advises the uterus to be pushed up, in order to separate the neck of the womb from the portions of the vagina reflected upon it, and also from the uterine arteries. Dr. Blundell‡ commences the operation posteriorly; Roux and Recamier first

* Recherches sur la Traitement du Cancer, tom. i.
† Journal Gen. de Med., Oct. 1829.
‡ Diseases of Women, Edit. by Castle.

separate the bladder from the uterus; while Gendrin commences laterally; so that he may reach and tie the lateral ligaments as quickly as possible. When the uterus is separated at one part, Blundell turns it backwards to complete the operation; Roux, Sauter, and Recamier, forward; while Gendrin draws it straight down. In all cases a ligature must be placed on each side, around the ligament, in order to prevent hæmorrhage. Dr. Blundell thus describes the operation: "I commenced by passing the index and second fingers of the left hand to the line of union between the indurated and healthy portions of the vagina, and then, by taking the stem-knife in my right hand, I could at pleasure lay the flat of the blade upon the point of these fingers, and urge the point of the instrument a little beyond the tip. The apex of the fore-finger was in this manner converted into a cutting point. By little and little, I worked my way gradually through the back of the vagina, towards the front of the rectum, so as to enter the recto-vaginal portion of the peritoneal cavity, frequently withdrawing the stem-scalpel, so as to place the point within the tip of the finger, and making an examination with great nicety, to ascertain whether the vagina was completely perforated. A small opening having been formed in this manner at the back part of the vagina through the opening, the first joint of the fore-finger was passed so as to enlarge it a little by dilatation and slight laceration. This done, I proceeded to make an incision transversely, that is,

from hip to hip; for this purpose carrying the finger, with its cutting edge, from the opening in the vagina already made, to the root of the broad ligament on the left side, so as to make one large aperture. I then took a second stem-scalpel, having the incision edge on the opposite side of the blade, and laying the instrument on the fore-finger, as before, in such a curvature, however, that the cutting edge lay forth on the other side of the finger. I carried the finger, thus armed, from the middle of the vagina, where the former incision commenced, to the root of the broad ligament on the right side, so that the diseased and healthy portions of the vagina behind became completely detached from each other. The back of the vagina then having been divided in this manner, I passed the whole of the left hand into the vaginal cavity, afterwards passing the first and second fingers through the transverse opening along the back of the uterus, this viscus lying, as usual, near the brim of the pelvis, with its mouth backward; its fundus forward, a little elevated just above the symphysis pubis.

" This manœuvre premised, taking a blunt hook mounted on a stem eleven inches long, I passed it into the abdominal cavity through the transverse opening, and with but little pain to the patient, pushed it into the back of the womb, near the fundus, and then, drawing the womb downwards and backwards towards the point of the os coccygis, as I carried the fingers upwards and forwards, I

succeeded ultimately in placing the tips over the fundus in the manner of a blunt hook; after which, by a movement of retroversion, the womb was very speedily brought downwards and backwards into the palm of the left hand then lodging in the vagina, when, at this part of the operation, the diseased mass might be seen distinctly enough lying just within the genital fissure. The process of removal being brought to this point, the diseased structure remained in connection with the sides of the pelvis, by means of the fallopian tubes and broad ligaments, and with the bladder by means of the peritoneum, the front of the vagina, and the interposed cellular web, — parts which were easily divided so as to liberate the mass to be removed. The broad ligaments were cut through, close upon the sides of the uterus, and in dividing the vagina great care was taken to keep clear from the neck of the bladder and the ureters. Four or five ounces of blood only were lost, and ligatures were unnecessary. The patient suffered but little distress, and recovered easily."

M. Recamier* begins his operation "by drawing the uterus down as low as possible, he then divides the vagina all round the cervix, detaches with his finger the bladder which is united to it, in part divides the peritoneum, reverts forwards the fundus of the uterus by a transverse wound purposely made, divides the upper third of the broad liga-

* Boivin and Dugès, Diseases of the Uterus.

ments, encloses with a ligature applied with a bent needle, the inferior third, together with its vessels, and concludes the operation by dividing beyond the ligature and behind the ulcerated portion of the vagina, the last attachments of the uterus." Langenbeck " endeavours to dissect off the peritoneum without wounding it."

There are various difficulties and dangers attendant upon this operation, which should be thoroughly considered before the operator takes up his knife; one is, dangerous or fatal hæmorrhage. This may be obviated by use of the ligature, or the employment of the actual cautery. A second source of danger arises from the shock given to the constitution, which, in the opinion of Dr. Blundell, is greatest when the supports of the uterus are divided, and when the mass is extracted from the pelvis. Such a risk is inseparable from the operation of removing the uterus when " in sitû." There is also the risk of the protrusion of the intestines, or of a wound of the small intestines, rectum, bladder, or ureter; and if the operation be performed ever so dexterously, provided the patient ride well over the shock of extirpation, if there may have been no serious hæmorrhage, and the intestines and neighbouring viscera escape unhurt, there is still the chance of inflammation of the peritoneum or the parts within the pelvis, while, lastly, there is no certainty that the disease will be removed with the viscus, and therefore this operation, decidedly the greatest and most painful operation in

surgery, "ought not to be undertaken very readily, or upon very slight grounds."

2. Excision of the Os Uteri.

The operation for the excision of the os uteri has not met with many supporters in this country; in fact, the greater number of those authors who have written upon the subject, are decidedly against the performance of the operation. Dr. Montgomery, in the 5th volume of the Dublin Hospital Reports, p. 456., says, "I feel quite prepared to declare my conviction of its almost universal impracticability, and of its utter inutility when the disease really exists and is developed."

In this decided condemnation other men of equal note cordially agree. Dr. Lee* says, "The operation appears to be equally cruel and unscientific;" and Dr. Blundell†, "That an operation of this kind is out of the question." On the Continent, however, the operation has been, and is, frequently performed, and, I believe, in many cases without any necessity; for instance, in simple induration of the os and cervix uteri, the result of chronic inflammation. No man has been louder in praise of the operation than M. Lisfranc‡; but if the account of M. Pauly be correct, but little credence ought to be placed in the statements of the former gentleman. Lis-

* Cyclop. of Pract. Med., vol. iv. p. 397.
† Diseases of Women, by Castle.
‡ Mal. de l'Uterus.

franc stated that he had operated ninety-nine times, while M. Pauly, on the other hand, can make out but fifty-three. There are, moreover, no accounts of the failures that happened in the hospital. M. Pauly further states, that, out of nineteen private patients, but one was permanently benefited; and of this number (nineteen) four died within twenty-four hours; twelve had an immediate relapse, and in two others the disease was not entirely removed; so that his patients sank the more rapidly. Nine patients were operated upon under M. Pauly's immediate directions, and near whom he remained twenty-four hours; of this number six were attacked with frightful hæmorrhage, three of whom died within twenty-four hours. In addition to these facts, he adduces abundant proof that the operation was uncalled for. On the other hand, Osiander is said to have excised the cervix nine times, with success*, the subsequent hæmorrhage being readily restrained, while Dupuytren† performed the operation successfully fifteen or twenty times. Velpeau‡ and Blandin lost several patients; and the former, in his *Nouv. Elemens de Med. Oper.*, states that "the operation is falling into disuse."

Professor Simpson of Edinburgh has lately published a successful case. This patient not only quickly recovered, but in the opinion of Dr. Lewis of Leith, who attended her in a subsequent confine-

* Edin. Med. and Surg. Journal, vol. xii. p. 286.
† Journal Gen. de Med., vol. cix. p. 214.
‡ Nouv. Elemens de Med. Operat., 1832.

ment, "conception took place within ten days from the date of the operation." In the "Edinburgh Medical and Surgical Journal" for March, 1841, two instances of excision are quoted from Dr. Ingleby. In one the operation was performed for cauliflower excrescence, but thoracic inflammation supervened in a few days after its performance, and the patient died from it and the effects of a very large vomica in one lung. Dr. Ingleby once excised the cervix for a malignant fungus, which did not extend above the os uteri more than a quarter of an inch. The patient, who was almost moribund prior to the operation, became apparently quite well, got fat, and remained in good health for a year, but the disease returning in the vagina and bladder, she died.

From what I have seen, I cannot suppose there are many cases fitted for the performance of this operation; for, unless there is a line of healthy tissue between the diseased portions to be removed and the body of the uterus, the disease will most certainly return in a short space of time. The truth is, that we are seldom called upon to examine a female until the disease has advanced beyond its early stage, and made some considerable progress. Besides, in my opinion, it is useless to remove the diseased portion, however favourable the case may be, unless we can remedy the cancerous diathesis which exists in these patients, and which leads to the redevelopment of the disease in the uterus or in some other distant organ.

If, however, the operation is to be performed, great care should be taken in selecting the cases; and, 1st, we should assure ourselves that the whole of the disease may be removed; that is, when it is confined to that portion of the uterus below the insertion of the vagina into the superior part of the cervix uteri. 2dly, Lisfranc, with his intemperate zeal, says, "if there be enlargement of the lymphatic glands, provided they are not enlarged by deposition, it should not prevent the performance of the operation; for the cause being irritation, the enlargement will subside after the performance of the operation." For my part, I should hesitate before I proceeded to excise, if I found the lymphatic glands and surrounding cellular membrane affected, which would be known by the immobility of the uterus.

Some writers suppose that congestion of the uterus or ovaries offers well-grounded objections to the performance of the operation. To this opinion M. Lisfranc does not assent, for he says, "such a complication need not deter us from the performance of the operation." If there be affection of the thoracic or abdominal viscera, or if the "cancerous cachexia be developed," the operation should not be performed.

The cases that seem to be the most fitted for the operation are, 1st, Those in which the disease is strictly confined to the cervix, without enlargement of the lymphatic glands or surrounding cellular tissue, and without any serious deterioration of the

general health. 2dly, The operation might be successful in corroding ulcer of the uterus, for, in this disease, the organ is very moveable, and there is no evidence that the disease will reappear provided the whole of the morbid portion be removed.

There are two methods of performing this operation. In the first, the organ is drawn down to the vulva, and the mouth is then excised. In the second, the operation is performed without drawing down the uterus. This latter operation is said to be preferable in cases of encephaloid cancer.

If the first operation be performed, the patient is to be placed as in the operation for lithotomy; a bivalved speculum is introduced; the os uteri is then grasped either by Museux's forceps or by a pair of tonsil forceps; the uterus is to be drawn down until the cervix passes through the os externum; the line of the insertion of the vagina in the cervix uteri is then to be ascertained, and with a probe-pointed bistoury the os, with the diseased portion, is to be removed from below upwards. In one case that I saw operated upon by Mr. Lawrence the greatest pain was experienced in drawing down the uterus. If the cervix uteri be very soft and lacerable the forceps will tear through, and the organ cannot be drawn down, when the

Second method of operating must be performed. —For this purpose Osiander invented a pair of curved scissors. Dupuytren* invented a kind of spoon with a cutting edge ("cuiller tranchante"),

* Duparcque, Traité des Alterations, p. 445.

also another instrument consisting of a circle of steel having its inner edge sharp, and the handle perpendicular to the circle: the neck of the uterus being introduced into the circle, by a rotatory movement the cervix is excised. Canella* invented a speculum which contained a second cylinder, having a transverse blade at its upper border, which could be opened or shut at the will of the operator, and thus the cervix, when the inner cylinder was rotated, was scooped out; during the operation the hook forceps was employed to fix the organ. To avoid the danger of the hooks slipping, Guillon† invented an instrument which is passed into the os uteri and expanded so far as to prevent its slipping out. By these means he thought a secure hold could be formed to enable the operator to fix the organ down; but there are but few cases which will admit the instrument, and, if introduced, its forcible expansion will lacerate and bruise the organ, or, if the disease be encephaloid cancer, the probability is that the diseased mass will be torn through. Dr. Aronsohn‡ has invented an instrument by which the uterus can be grasped and its cervix excised "in sitû." The best method of performing this operation with which I am acquainted consists in emptying the bladder, placing the patient in the position for lithotomy, or on her knees

* Cenni sull' Estirpazione della Bocca del Collo dell' Utero. Milano, 1821.

† Boivin and Dugès, Diseases of the Uterus.

‡ Zeitschrift fur die Gesammte Medicin, vol. i. p. 436.

and elbows, and then introducing a bivalved speculum, in order to dilate the parts and give the operator a full view of the diseased structures to be removed. The os being seized with a pair of forceps, the cervix is divided with a curved knife, the sharp edge being situated below, and not in the cavity or convexity. Whichever method of operating we have recourse to, great attention must be paid to restrain the hæmorrhage, as many patients have lost their lives from this accident. This may be prevented by plugging the vagina with lint or tow, due care being taken to ascertain that the bladder is emptied, as patients can seldom pass their urine without the assistance of the catheter when the plug has been employed. Besides the danger of immediate hæmorrhage, there is the risk of secondary bleeding; this occurred in several cases of Lisfranc, as related by M. Pauly. Hysteritis or peritonitis may occur, and rapidly destroy the patient: this has been found to take place more frequently in those cases where the vagina has been wounded than in those where it has been left intact. If inflammation of the organ or peritoneum occur, it must be treated by general and local bloodletting, the administration of calomel, opium and antimony, &c. If any of the morbid structure be left the wound will not heal, the edges will ulcerate, and, the disease spreading, the patient's constitutional powers will become rapidly exhausted. In one case, where the os uteri was removed, the patient suffered very considerably at the menstrual periods,

and this seemed to depend upon the very small aperture to the womb caused by the contraction of the divided structures.

ON PREGNANCY ASSOCIATED WITH CANCER.

It is rather remarkable that so serious and malignant a disease as cancer should not prevent the possibility of conception. Many cases are recorded of pregnancy combined with both the scirrhous and encephaloid form of the disease: by Zeppinfield in his "Diss. System. Casum. Carcinomatis Uteri cum Graviditate conjuncti;" Siebold, "De Carcinomate Uteri;" Levret, Mad. Lachapelle, Mauriceau, Paul Portal, Kilian, Exton, Mad. Boivin, Montgomery, F. Ramsbotham, and others. Cases are recorded in which pregnancy occurred when the uterus was affected with this disease in its several stages. Puchelt has collected thirty-two cases of labour complicated by scirrhus uteri, where the seat of the disease was as follows:

	Cases.
The whole uterus was scirrhous in	1
A large portion of the organ in	5
The neck of the uterus	11
The neck and mouth	5
The mouth alone	6
The left side	1
The body	1
The fundus	2
Total	32

In considering the prognosis of pregnancy associated with cancer, I will first speak of it with

respect to the mother, and secondly with respect to the child. With respect to the mother, much depends upon the method of delivery. If the scirrhous formation be in its early stage, if it be small in size, and if the patient's constitutional powers have not been too much lowered, the woman will generally go through her labour, although such process may be rendered lingering by the presence of such a tumour; and, even when the child has been delivered with instruments, the patients will, for the most part, recover the immediate shock of parturition, to die, at an earlier or later period, from the effects of the malignant disease. But it must be allowed that all labours, whether terminated naturally or artificially, cause the progress of the disease to be more rapid. Of twenty-seven women, Puchelt informs us five died during labour, nine a short time after delivery, ten recovered, and in three cases the results were not known.

Abortion not unfrequently takes place when there is malignant disease of the uterus. Of the one hundred and twenty cases I have already referred to, forty per cent. had aborted.

The prognosis with respect to the life of the child is generally unfavourable, for the length of the labour, superadded to the compression which the child's head has to undergo when the carcinoma exists at the mouth or neck of the womb, where the patient is delivered by the unaided natural efforts or by the use of the embryospastic instruments, is generally sufficient to cause the death of the child.

In the twenty-seven cases previously referred to, fifteen children were still-born, ten were born alive, and in two nothing is stated respecting the viability of the child.

Treatment. In determining the method of treatment to be adopted in a case of pregnancy combined with malignant disease of the mouth or neck of the womb, we must carefully examine the seat, form, and size of the opposing obstacle, and ascertain, if possible, and with as much accuracy as the case will admit, the dimensions of the pelvis, and then cautiously determine in our minds the chances of delivery occurring at the full period by the unaided efforts of the uterus. In a case to which I shall presently allude, and where the tumour occupied the posterior part of the cervix, the labour, although lingering, was terminated by the unaided uterine efforts.

Such instances, however, are rare, and artificial assistance of various kinds is necessary. Some authors recommend emollient injections: these are of no avail. Others extol large bloodlettings: venesection, although of the greatest advantage in simple rigidity of the os uteri and induration of the os and cervix, the result of chronic inflammation, will be found of little or no service in carcinomatous affections of the uterus. Others, as Madame Boivin and Dr. Ashwell, recommend incisions to be made in the diseased parts, to permit the passage of the child; and it cannot be denied that, had such an operation been performed in many of the cases re-

corded, where the patients died undelivered, either from rupture of the uterus or collapse, the chances are that the mothers' lives would have been prolonged and the viability of the children secured. Some authors, as Lieutaud, Dugès, &c., recommend the extirpation of the tumour by the knife or cautery. This practice, however, is not adopted in this country, neither, in my opinion, is it at all practicable, much less advisable. Siebold recommends that version should be employed in such complications as those under consideration; but to introduce the hand into an uterus so much affected with malignant disease as that it is not considered prudent to leave the case to the natural efforts, and then to grasp and bring down one or both feet, would, of necessity, be attended with much violence and laceration, and the passage of the fœtal head would still present a great difficulty. It is, moreover, very unlikely that such an operation will become successful, as it regards the life of the child; for, in addition to the causes operating to render its viability doubtful, which is the case whenever version is performed, we have the additional one of retardation produced by the nondilatability of the soft parts through which it has to pass. Cases are recorded where version has been performed, and, in order to expedite the delivery, more force than usual has been employed; but the patients have died almost immediately after delivery, either from rupture of the uterus or from collapse. The forceps will frequently be of great assistance, especially in

those cases where there is but one, or it may be two, schirrhous tubercles, and these not in an advanced state. A case presently to be related is a good example of their application. In cases where there is so much structural change that the application of the forceps is impracticable, and where the child is indisputably alive, as proved by its movements and by auscultatory signs, it is of great importance to determine whether we are justified in opening the child's head, and destroying its life, or whether we should perform the Cæsarean section. This is a question which I think demands serious consideration. In many cases on record I am of opinion that the life of the child might have been spared, if such an operation had been had recourse to, whilst several of the mothers died during labour, or soon after delivery, and in others their miserable existence was prolonged but for a few weeks.

Case XXXVI. In June, 1835, I attended Ann S——, a woman 40 years of age, in her twelfth confinement. I had not seen her previously, and therefore had no opportunity of becoming acquainted with her history before she was in labour. This woman had suffered severe pains for several hours previous to my visit: the liquor amnii had not escaped. On examination I found the os uteri irregular in form, dilated to the size of a crown, the anterior lip occupied by a firm scirrhous tubercular deposit, the posterior lip soft and very dilatable.

After some hours of great suffering the posterior lip dilated sufficiently to permit the head of the child to pass. This having been accomplished, in half an hour, the child (under the standard size) was expelled. On examining the os uteri after labour, I was perfectly satisfied as to its state: the anterior part of the cervix was thickened and indurated, and the anterior limbus of stony hardness. So far as the labour was concerned the woman's recovery was most favourable; but the pressure to which the anterior lip of the os uteri was subjected caused the disease to progress rapidly to ulceration, and in a few weeks the patient laboured under all the symptoms of ulcerated carcinoma.

Case XXXVII. Sarah S——, aged 39, placed herself under my care in 1840. She was married, and had been pregnant nine times, having twice miscarried at the period of quickening. She stated that her last, unlike her previous labours, had been lingering (forty-eight hours) and had been attended with great suffering. Previously to her labour she had suffered from pains in the back, increased whenever she had a motion; and the fæces, she said, were expelled with some difficulty. At the time of the consultation she was five months advanced in pregnancy. The following were her symptoms:— Lancinating pain in the back, increased when in bed or upon going to the water-closet, where she was compelled to remain for a long time, the evacuation of the fæces taking place

by small portions at a time; and to obtain a motion she was continually obliged to take aperient medicine. She stated that she had lost flesh; and from her countenance being florid and healthy, it had assumed a dirty parchment-like hue. On making examination, the posterior limbus of the os uteri and cervix was found of a scirrhous hardness; ulceration had not taken place, and there was but little vaginal discharge; the anterior section of the os uteri and its cervix appeared tolerably healthy. Examination "per rectum" detected the intestinal passage to be much narrowed by the pressure of the schirrous tumour, and on passing the finger to make the requisite investigation, considerable pain was occasioned; the verge of the anus being studded with hæmorrhoids. But few local remedies were resorted to, consisting chiefly in the use of anodyne injections, as the Decoct. Papav., Conii, &c. Her bowels were kept moderately regular by a daily dose of Mist. Ol. Ricini cum Tinct. Rhæi C., and she was ordered a sedative at night. Under this treatment she progressed until the expiration of the period of utero-gestation. As she lived at some considerable distance, I did not see her during her labour, which lasted sixty hours; the anterior segment of the os uteri dilated sufficiently to allow the passage of a small fœtus. After her delivery great pain and a sensation of burning were complained of in the region of the tumour, which were relieved by the occasional application of leeches to the groins and around the vulva, and the use of

anodyne enemata. Five weeks after her confinement she called upon me, and complained that she suffered from all her previous symptoms, but in an aggravated degree. Vaginal examination detected a great increase in the local disease, but the anterior segment of the os was still free. Rectal examination proved that the calibre of the intestine was still more narrowed from the pressure of the scirrhous mass. She was ordered —

Pil. Sap. cum Opio gr. vj. pro suppositorio om. nocte imponend.
Ol. Ricini. ʒss. Tr. Rhei. C. ʒss. omni mane summend.
Infus. Gentianæ C. ʒxj. Tr. Cinch. C. ʒj. bis in die.

These medicines had the desired effect; the suppository kept her bowels quiet during the night, for, before its employment, she was disturbed several times, and the efforts made to obtain a motion were accompanied with distressing tenesmus. The castor oil and rhubarb caused two fluid motions during the day. This treatment she was persevering with when I last saw her.

Case XXXVIII. In 1836, I attended Mrs. R., residing at Walworth, with her third child. She was a weakly, delicate female, suffering frequently from headache, and scarcely ever free from pains in her loins. During the latter period of her pregnancy, she had frequent calls to pass her water: this she attributed to the pressure of the child. Her labour was of six hours' duration, and a living child was born. My attention was directed to the anterior part of the os uteri, there being four or

five small bodies occupying its margin about the size of peas; pressure on them did not give her pain. Her convalescence was rapid. In June, 1838, I was again engaged to attend this lady. Throughout the whole of her pregnancy she suffered greatly. For the first five months there was the most distressing sickness, which nothing had the effect of relieving. During the last three months my patient was scarcely ever free from pain, very similar to the grinding pains of labour; these were always increased on her lying down in bed, and there was a remission in the morning. During the last month of utero-gestation, the pains were more aggravated; and on these occasions I was called to her, as she supposed labour had commenced. On Saturday, at 6 P. M., I found the os uteri of the size of a crown piece: in the anterior lip there were the bodies I detected at her previous confinement, but varying in size; the two largest of the size of horse-beans, and the others were as large as peas; they were very hard, and the surrounding uterine tissue was thickened and harder than natural. With great difficulty the os uteri dilated to admit the passage of the child, although the pains continued without intermission; still I did not feel myself justified in interfering, and in this opinion I was confirmed by a celebrated physician-accoucheur, whose advice I had solicited, and it was not until 7 P. M. on the Sunday, that the child's head had passed the os uteri, when the labour was completed in one hour. The fœtus was dead. Nothing

occurred to prevent my patient's convalescence, with the exception of pain and heat in the region of the tumours, which a few leeches and anodyne injections removed. In eleven months from this time I again attended this lady. She was seven months and a half advanced in utero-gestation. After seven hours' pain, a living child was expelled. I saw her occasionally for six months after her labour, when the disease in the mouth of the womb was progressing. I have lately ascertained that this lady is in the last stage of malignant disease of the uterus.

Case XXXIX.—I am indebted to a Mr. Butler of Woolwich for the particulars of the following case, which occurred in the person of Mrs. C., and who was under the care of another surgeon. The liq. amnii was discharged in the forenoon of the 18th of February, 1830, by the spontaneous rupture of the membranes. On examination it was discovered that there was a hardness amounting almost, if not quite, to scirrhus, occupying at least two-thirds of the os uteri; the scirrhosity extending from the os uteri over all that part of the uterus which is felt in ordinary examination "per vaginam" at the full period of gestation. The labour was left to the efforts of nature as long as was consistent, and up to eleven o'clock on the night of the 21st, the mouth of the womb was dilated but comparatively to a small extent, but it was forced by the violence of the pains down almost to the os externum: the woman was bled, and it was then

thought proper to introduce the forceps, which was carefully executed, and the delivery was by these means accomplished with safety to the mother and child. The placenta quickly followed, the uterus contracted well, and, by an examination made immediately after delivery, the scirrhosity appeared to be of the size of a goose's egg. This patient lived rather more than three years after her delivery, but was always in pain, and died with all the symptoms of carcinoma uteri.

Case XL. — In April, 1838, I was desired to call upon Mrs. C., who stated that, from her symptoms, she had supposed herself three months advanced in pregnancy, but that during the night she had been taken unwell; several small coagula were expelled unattended with pain; the discharge had not been profuse, for, although eight hours had elapsed since the first occurrence of the red discharge, she had soiled but one napkin. Perfect rest on the sofa was enjoined, acidulous astringent medicines ordered, and cold drinks prescribed. In two days the discharge had ceased. I now ascertained from her, that five years previously she had a child, her labour was lingering, and the fœtus was still-born; this she attributed to the negligence of her medical attendant, who had left her, and her child, expelled before his re-arrival, was suffocated under the bed-clothes. Her general health had been good, and the only ailments which she had suffered were a dull, heavy, pain at the umbilicus at the period of menstruation

and a leucorrhœal discharge. Three weeks after the occurrence of this flow of blood, she requested my attendance under similar circumstances, which again subsided by the exhibition of acids, astringents, and by rest. Up to July she suffered from no particular symptom; she gradually increased in size, her mammæ became gradually developed, and the motions of the child were distinctly felt. At this time, being six months advanced in pregnancy (as she supposed) she was attacked with hæmorrhage, of a very alarming character, unattended with pain, which the application of cold to the genitals, and the exhibition of the ordinary astringents, failed at first to check. At this time, unable to account for these attacks of bleeding, I proposed an examination, to which she consented. I found the whole of the os uteri affected with malignant disease, of a fungoid character, and the anterior part of the cervix indurated. It was now a question whether she should be allowed to proceed to the full time of utero-gestation, or whether premature labour should be induced, the parts being so extremely diseased; and I had great doubts of their allowing the expulsion of a nine-months' child. To settle the question, I met an accoucheur of high standing, and was perfectly astonished to hear him express a decided opinion that the lady was not pregnant, although he agreed with me as to the nature of her disease. This opinion he formed upon his digital examination alone; and to my reiterated request that he would listen to the fœtal pulsations and

uterine souffle, his only reply was that he never resorted to this means of diagnosis, but trusted entirely to his manual tact, which a long practice had rendered dexterous. Not satisfied, I requested to have the additional opinion of Dr. Blundell; who, after a careful examination, and without knowing the differences of opinion on the case, stated she was pregnant, correctly dated the period of her pregnancy, and coincided with me as to the nature of the disease. He strongly advised that she should be allowed to proceed to the full period of utero-gestation; stating that, in his opinion, those cases did best that were left to nature. The lady from this time until the end of October suffered from three several attacks of hæmorrhage. On Thursday afternoon labour pains were established; these went on gradually and regularly through Thursday night and Friday, with but little influence on the diseased parts. Having administered an anodyne, she obtained two hours' sleep, and awoke much refreshed; her pulse was as strong as before the commencement of labour, and her spirits were good. At 7 P. M. on Friday her pains recurred, and continued through the night. On Saturday morning there was great tension of the diseased structures; the pains became of a most violent and expulsive character, and at five o'clock on Saturday afternoon a very large piece of the diseased mass was torn away, and forced before the head of the child, which rapidly descended into the pelvis, and was expelled, followed by the placenta. The child, a

small female, was dead, and the cuticle separated in many places. On examination after delivery the chasm left was so large that the hand might readily have passed into the uterus.

This lady convalesced very quickly, and in three weeks from her delivery was in her drawing-room upon the sofa. She lived for six months after her delivery, and died during the syncope produced by a profuse vaginal hæmorrhage.

Case XLI. Anne M——, a patient under my care, with carcinoma uteri, married, became pregnant, and miscarried between the third and fourth month of utero-gestation. In five months she again became pregnant, and again miscarried. In three months' time pregnancy again occurred, followed in a few weeks by a third miscarriage. These repeated abortions appeared to have a prejudicial influence upon her constitutional powers, depressing them in a very great degree, and attended, in my opinion, also with injury to the local affection; for ulceration speedily followed the last abortion; its progress was rapid, and in eight weeks she died.

I have thus, as succinctly as possible, considered the subject of the organic diseases of the uterus; I have shown the relative proportion that exists between functional and organic diseases of the womb; I have endeavoured to investigate the influence of structural disease, on the faculty of conception, and

the viability of the offspring; I have entered at length into the various modes of examination by which we recognise the existence and diagnosticate the several organic diseases of the uterus; I have stated the general symptoms that mark the presence of structural change, while the organic diseases themselves I have treated under three divisions:—the first, inflammation and its consequences; the second including diseases of a specific nature; while to the third I have appropriated the consideration of those diseases, concerning whose malignancy there can be no doubt. I have thought it inexpedient to introduce into this essay many cases: but I must be permitted to state—there is not a fact advanced, or a method of treatment advocated, which I could not have confirmed by the recital of one or more cases.

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